

# Canadian Computer **Wholesaler**

The National Business Bulletin

Volume 14 Number 8

LAB TEST: **LARGE** MONITORS  
Buyers want The **BIG Picture!**

**Comdex  
Canada '97  
Wrap-Up!**

**Tapping That Network Sale**

**Survive The Retail Game (And Profit!)**

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## Computing With Barney?

The sight was more than a little unusual when Microsoft Corp. vice-president Frank Clegg, amidst the expected Office 97 and Windows CE3 themes in his Comdex/Canada keynote address, suddenly pulled out a stuffed toy, and plugged it into his on-stage PC. (See our round-up on Comdex/Canada, page 14.)

Then, Clegg covered the toy's eyes, and the little creature exclaimed: "It's dark in here!" Clegg removed his hand, and the fuzzy beast said: "Oh, there you are!" Quiet murmurs filled the audience as people whispered: "Is that a joke? Is this for real?"

But, indeed it's true. If Microsoft has its way, the next generation of computing accessories will include stuffed animals, obviously for the more youthful among the computing audience.

In this case, the toy was more other than that: cuddling purple dinosaur every-on-either loves to love, or loves to hate—Barney. While the creature has a certain amount of functionality in its stuffed alone mode, it shines as impressive 14,000-word vocabulary when plugged into the computer. Microsoft's ActMate Barney will work along with special CD-ROMs from Microsoft, with a stated goal to enhance a child's learning experience. Barney should be in stores by Christmas, with pricing (not finalized at press time) hitting somewhere between \$125 to \$150.

That wasn't the only warm and fuzzy from Microsoft at Comdex. The company took the opportunity to roll out (in a Canada-only effort) an annual awards program for quality in software retailing—called the Microsoft Canada Golden Awards for Leadership in the Art and Science of Software Retailing. Kudos go to Microsoft Canada for initiative and a professional desire to raise the bar on software retailing in Canada. Microsoft says the award is meant to recognize software retailing in general, not specifically in regards to its own products, and a panel of judges will decide on next year's winners. The talk now will be for Microsoft to get sufficient momentum behind the awards—not only to encourage innovations, but to make the prize sufficiently coveted that it will motivate retailers to greater efforts on the software retailing front. (For more

information, see <http://www.microsoft.com/canadatagames/golden.htm>.)

Among the speakers at the black-tie gala event held to kick off the awards was John Torella, an industry analyst with the J.C. Williams Group, in Toronto. He told the assembled audience: "The graveyard is filled with retailers who didn't keep pace with the changing consumer."

Whether a retailer wants to be the hottest, the biggest or the easiest to get along with—you have to be best at something, he said.

He pointed to food retailer Loblaw as an excellent example of a retailer that has combined service and self-service, and has raised its store brand President's Choice into direct competition with "name-brand" products. Part of its success, he said, comes from combining value with more elite-type offerings: "People want to sleep on the bones, but splurge on the shrimp."

And today, he said that food chain is already thinking about what may be next in retailing—such as robots, Internet shopping or smart cards.

From available parking to in-store decor, Torella said customers need to feel a store is "sympathetic" to them. The store needs to provide a "consistent round of value," to the customer even after a purchase—"making you've made a good choice."

This issue, he was to check out our update on the latest trends in retailing, in "What's In Store For Stores," page 26.

Also this issue, Associate Editor Jeff Evans does an in-depth examination of the latest trends, products and opportunities in networking. Please see, "Networking—The Market Is Now Everywhere," page 26. And Dan McLennan examines music and products in Point-Of-Sale software, in "Point-Of-Sale Targets Huge Range Of Retailers," page 46.

According to Microsoft, Barney has been called the "Elvis of the pre-school set." So, here's something to look forward to the demo model of ActMate Barney in your stores this Christmas—singing one of his 17 songs, including the ever-popular "Head, Shoulders, Knees and Toes" and his signature hit—"I Love You."

Servant's greetings. ☐

Grace Chazdarian  
Editor

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**Canadian Computer Wholesaler**  
is published 12 times a year by  
**Canada Computer Paper Inc.**

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Subscription applications and change of address notices must be made at least 30 days before the next delivery.

Post subscriptions are published bi-monthly, \$25 per year for any qualified subscribers.

Changes of Canadian Computer Wholesaler editors in circulation, distribution and advertising are accepted by Canada Computer Paper Inc. in this publication may be as specified in any letter without any previous or later notice. The opinions expressed in articles are the sole responsibility of the publisher.

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**Comdex age restriction flawed**

I recently was reading the latest issue of CCW when I learned that Comdex placed a age restriction on its show. I can't understand why Comdex does such a thing. What's the difference if there are a few people who are not "qualified to make a buying decision?"

The age limit was to be 16, however the Comdex spokesperson says that (the show) wanted "no kids." Do you really believe that people at the age of 16 are still kids? In 10 years they could possibly be making some major purchasing decisions, however if they aren't allowed in now they could easily withhold from the event when they have the chance to "make a buying decision."

I hope the people who made the decision about the age rule get a talking to from their noses.

Todd Mansfield  
Owner, SpyderByte Computers  
Calgary  
spyderbyte@usa.net

**Age policy is unfair**

This is totally unfair that Comdex/Canada now has a policy that will bar attendees of less than 22 years.

I was 17 when I got my first CNE certificate. I passed with flying colors. I am currently employed by V-Com computers -- one of the biggest computer retailers in Vancouver, BC. We mainly sell to corporate buyers. I repair and maintain networks for a few big companies -- for example, the University Of British Columbia, WIC Communications for BCTV, University of Victoria and Simon Fraser University.

Just because someone is the age of 17 shouldn't mean that they are not allowed to go to computer shows to learn more about their choice of career. I am 22 and I attend almost all Comdex shows for information.

Simon Wong  
V-Com Tech Support  
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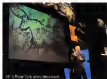
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## INDUSTRY FLASH!

### Hewlett-Packard outlines imaging strategy in NYC

In a New York presentation to customers and industry buyers, Hewlett-Packard Co. formally announced its "Internet Imaging Initiative" — imaging together a range of technologies, partnerships and strategies, and publicly committing to enhancing the quality and usefulness of images on-line.



HP's WebTVLink uses compression.

"It was more a statement of direction than anything else," commented Allan Gorned, publisher of *The Future Image Report*, in Burlingame, Calif. He said the company is pushing the idea that however people may choose to connect to the Internet, they should be able to work with "high quality photographic images."

According to HP, the joint effort will give consumers "more flexibility" in how they upload, download and manipulate images on their PCs. GHP says users will also be able to

print images at home on photo-quality printers.)

The initiative is built around the FlashPix image file format and the Internet imaging protocol, and the company. Although the company didn't specifically detail planned technological enhancements, the stated goal of the initiative is to "address several problems in today's Web-based imaging. (Included) delays in Internet image download, poor print quality of Web images, and lack of image detail available via the Internet."

Richard Reffman, executive vice-president and general manager, for HP's Computer Organization, said, "Images have been important throughout history of mankind. Images play a central role in how people express themselves and communicate."

HP and PictureVision Inc. announced a plan to expand the functionality of PictureVision's PhotoNet — an imaging infrastructure that lets photo shooters offer customers the opportunity to view and share photographs on the Web.

HP and PhotoDisc Inc. (pending negotiation of a formal contract) say they will co-develop an on-line resource providing high-resolution digital images for use by small office and home office customers. "Our hope is that with this new on-line resource, any business professional will be able to easily incorporate high-quality image material into both print and electronic projects on the fly," said Mark Torman, CEO of Seattle-based PhotoDisc, in a statement.

This fall, HP says it will launch the HP Desktop 670TV printer — aimed at Internet appliances such as the WebTV, priced between US\$159 and US\$250. The idea, according to the company, is that WebTV users will be able to print E-mail, news, information, and coupons, for example. A HP technology called SmartFocus will enhance resolution.

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## Apple Computer president Gil Amelio resigns

On July 9, in a sudden departure that bodes ill for struggling Apple Computer Inc., Apple president and CEO Gil Amelio left the company, without a permanent successor having first been located. Apple co-founder Steve Jobs, who had recently resumed a close connection with the company upon selling his NeXT operating system to Apple, is reported to be taking a more active role in product development and business relations, at least in the interim.

Amelio, who was promoted from Apple's board of directors to the CEO position as a would-be miracle worker, succeeded in bringing about an impressive turnaround at troubled National Semiconductor Inc. prior to taking over Apple, 18 months ago. However, he was unable to work the same magic on the Cupertino, Calif.-based Macintosh computer maker. Apple has lost more than US\$4.6 billion in the last two years, with every recent quarter but one posting substantial losses. Speculation focused on the possible trigger for his sudden departure suggests a larger than expected loss for Apple's current quarter. The company's sales are estimated to have shrunk from US\$11.1 billion in 1995 to an expected US\$8.5 billion this year, and the Apple Mac's global market share has declined from around five per cent to a little over three per cent during the same period.

Amelio can be credited with taking a number of necessary short-term economy measures at Apple, such as laying off staff, cutting unprofitable products and reducing investments, but it would seem that he failed to solve Apple's fundamental problems.



## Legal battle won't threaten chip supply, DEC exec says

(NII) — The patent dispute between Digital Equipment Corp. and Intel Corp. is mostly separate from the supplier-consumer relationship between the two companies, and will not affect Digital's personal computer business, according to Jim Nolan, head of Digital's personal computer business in Canada.

At the Comdex/Canada trade show in Toronto, Nolan said that Digital has agreements in place with Intel that will protect its access to Pentium chips from the company it has charged with misappropriating chip technology that Digital developed for its Alpha processors. Digital's access to continued supplies of Intel chips has been in dispute, with officials of Intel contending Digital's assertions that contracts between the firms ensure a continued chip supply to Digital's personal computer unit.

"Yes, we're pursuing Intel, so question about it," Nolan said, "but another level of the relationship is the supplier relationship." He mentioned that Digital also sells goods to Intel.



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## IBM unveils Network PC during Comdex/Canada tradeshow

Rocky Adams, the vice-president and general manager of client systems of the IBM Personal Computer Co. unveiled Big Blue's latest computing platform: a new generation of Network PC which promises to offer corporate customers full Windows multitasking computing capabilities, while simplifying the management of networked PCs.

The new computer is basically a Windows PC in a slim "installable" case, with a built-in network interface, and without a floppy drive or CD-drive. This model of computer can be connected to a network by simply connecting it to any free network cable, timing it on, and inputting a few pieces of user information. The new user's information will appear on the network administrator's screen, and after verification, the computer is added to the network. By simplifying the network administrator's tasks, and allowing less opportunity for user-generated damage, the new Network PCs are hoped to offer savings in the order of 10 to 15 per cent in networking costs, although the Network PC hardware will cost about the same as a regular PC. Adams says.

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## Corel Computer Targets the network



"Infinite bandwidth, total reliability and universally accepted standards" are the ideal conditions for the future of communications and computing, according to Ed Ed, president of Ottawa-based Corel Corp.

Although these conditions haven't been fully realized, recent developments have brought them 'close enough' to reality to allow a new era in network computing to begin, according to Ed. Corel Computer

Corp. initiatives are in network computing clusters, server hardware and software, PCs and client software, video and audio communications products, and, network integration, involving Corel and third-party software products such as file and print services, E-mail collaboration, electronic forms and Java-based productivity software.

Corel Computer Corp. intends to roll out limited numbers of its new products, such as the Video Network Computer (VNC), by the end of 1997, and expects to see substantial sales in 1998, according to Ed. The VNC is a thin client device, based on a Strong ARM RISC processor, which is optimized for running software written in Java. It will also run Windows applications in an emulation mode. Corel sees the market for Network Computer systems, composed of

servers, the clients, and Java software, growing exponentially from 1996 onwards, to the point where, in several years, NC sales may surpass PC sales, and flat.

## Samstack celebrates eight years

Samstack Computers, a major Canadian PC manufacturer and distributor, celebrated its eighth anniversary on June 13 with an open house attended by hundreds of Canadian computer industry professionals. In the last year and a half, according to Samstack marketing manager Robert Chan, the company has grown "phenomenally," posting over \$100 million in sales so far in 1997.

Samstack makes the Pace PC and Samstack computer lines, which are sold through over 1,000 resellers across the country. In addition to finished PCs, Samstack also distributes multimedia computers (such as CD-ROM drives and sound cards), as well as hard drives and monitors. During the open house that was a part of the eighth anniversary celebrations, visitors were able to tour the

assembly, quality control and distribution facilities in the main plant in Markham, Ont.

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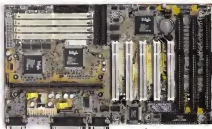


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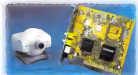
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## Catch The Highlights:

# Network Computing, Mobility, Windows and Video!

By Jeff Evers and Grace Casanova



Multikey, networking and a big emphasis on visual computing were major themes at the COMDEX/Canada '97 tradeshow held at the Metropolitan Toronto Convention Centre from July 9-11. The show featured more than 800 exhibitors, with hundreds of products being shown publicly in

Canada for the first time to an expected 60,000 attendees.

The main new themes at the show included, networking technology and network-friendly personal computing devices, increased performance and connectivity in mobile computing devices, the further expansion of the Windows OS into new applications at every level of computing from enterprise servers to handheld PCs, and a new wave of digital video products leading up to a general advance in graphics performance.

One common topic of side chatter at the show was the subject of who didn't show up this year: the traditional Big Three of personal computing, IBM, Apple and Compaq were all official no-shows.



### Notebook Heaven

The notebook market is shaping up to be very competitive in 1998, based on the offerings shown at this year. Toshiba's booth was busy, with crowds marching at the notebook market leader's newest entry, the slim and sexy (about two pounds) Libretto PC, as well as the latest Vectra and other notebook models.

Canadian notebook maker Eurocom was showing its new 266MHz Pentium II model, which the company claims is the fastest notebook on the market.

Handheld computers were strongly in evidence, with the U.S. Robotics Palm Pilot Pro continuing to create excitement among all levels of users (in COMDEX/Canada numerous people were observed actually walking around using Palm Pilots). Philips showed its miniature Velo Windows CE handheld, featuring a high speed chipset, voice dictation recorder and 18 2MBs modules. LG Electronics also had a nicely featured CE unit with built-in modem, for \$499.

### Software Retailing Award

Microsoft Canada Inc., in a Canadian-only initiative, launched the first annual Microsoft Canada Golden Awards for leadership in the Art and Science of Software Retailing, at a black-tie function in downtown Toronto, during COMDEX. The first awards will be given out during COMDEX/Canada '98, based on a variety of retailing criteria. Microsoft says the awards will be decided by a panel of judges, and the retailers don't necessarily have to sell Microsoft product. Nominations will be made by customers, and Microsoft plans a significant marketing campaign to encourage nominations.



"The retail industry is under strong pressure," commented Frank Clegg, Microsoft Corp. vice-president, explaining the awards are intended to "get people to think about creating and doing a better job in Canada. We think it will be rewarding for everyone."

To kick off the initiative, a life-time achievement award was given to Harry Hart, president and CEO of Harco Enterprises Inc. The computer division of his company, founded in 1976, now has more than 150 locations, under such names as MicroAge, Compconline and Compuscan.

### Celestica Teams With Keating

At COMDEX, Toronto-based memory manufacturer Celestica entered an agreement with manufacturer's representative Keating Technologies Inc.

Keating will provide sales, marketing and technical support services for Celestica's memory products in Canada. While Celestica has been making an international push for its products, this move is designed to help build the company's presence at home. Ray LeBlanc, Celestica's vice-president, memory sales and marketing, said Keating is expected to help develop the market in Canada "to give some advantage in this volatile market-place."

"What Ray's looking at is total market management. They've got to have Canadian sales be strong. Keating has a strong Canadian presence, and our channel relationships are already intact and ready to go," said Sharon Spring, vice-president of marketing for Keating.

For Keating, this relationship with a Canadian company is unique, as traditionally Keating's clients are American companies looking for help breaking into Canada.

### Acer Signs With Merisel

Acer America Corp., in Mesa, Arizona, Del., signed a fourth distributor — Merisel Canada Inc. Merisel will be distributing Texas Instruments



Extremis and TravelMate notebook computers, AccuEnter and AcerPower commercial desktop PCs, and Acer Alion servers. Merisel joins Tech Data Canada, Globaltek and EMD as Acer's Canadian distributors.

According to Anthony Lin, Canadian general manager for Acer, the company's focus this year has shifted strongly to the enterprise/business market, away from retail-oriented product.



(Dell's M1)

### The Big Picture

There were a lot of desktop computer graphics and video eye candy filling in the edges of the show. NEC, Mitsubishi, and Fujitsu were all showing 40-inch class flat screen plasma monitors. Dorel Weiss, head of NEC Canada, pointed to a NEC 30-inch LCD color panel, and noted that while a 14-inch flat screen cost \$13,000 two years ago, it now costs less than \$3,000. As demand and production increase, he said, the factories producing today's exotic flat screens will be able to bring flat



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screen monitor prices close to the level of traditional cathode ray tube (CRT) monitor prices. According to NEC studies, about 35 per cent of monney buyers would choose flat screen monitors if the price was no more than 30 per cent above the price of a CRT monitor. This indicates a large potential market for flat screens as prices continue to decline.

One of the most original monitors on view was the Princeton Graphics System Aesthetix home monitor, a 29-inch (27-inch diagonal viewable) so-called "convergence" monitor. The Aesthetix can handle both TV (composite NTSC) and computer (up to 60Hz PC or Mac video output) imagery. It's intended to facilitate using the family TV for surfing the Internet or playing video games. The most surprising detail was the Aesthetix's price: US\$999, or about \$1,970. A 31-inch model is also available. MAG Innovation also displayed new monitors, including its DMS30, with the innovative MAG wheel control, which makes selecting remote display options a breeze.

Toshiba's Digital Processing Systems showed its Spirit direct DV editing product, a laptop or PC. FlatWin card that allows users to bring video data by cable from a digital camcorder to their computer, modify, edit and add effects to video sequences, and then transfer the edited video back to the camcorder to be recorded onto digital video tape. There are two obvious advantages to the FlatWin approach: one, using all digital means to avoid the generational loss involved in converting video from digital to analog, and two, the ability to use digital video tape as a practically infinite storage medium.

New graphics software was rather scarce, but Adobe showed its recently released version of the Illustrator program to substantial crowds. For gamers, a new wireless 3D joystick from Techmedia employs infrared and ultrasonic sensing to allow users to, for example, aim and fire naturally.

For mobile digital video creation, Hitachi showed its miniature MP-EG1A camera, which can create up to 30 minutes of full motion video and audio, or 3,000 still images. The MP-EG1A can save motion video or still images in MPEG-1, JPEG, or JPEG with Audio formats. Digital cameras were everywhere at the show, from a dizzying array of vendors, including Agfa, Epson, Canon, Sony and Minolta.

With prices ranging as low as \$375, and with a new generation of high-resolution "megapixel" cameras hitting the market — the digital camera market seems destined to continue to take off.

Some highly innovative new color printers were in evidence at the show. At less than \$300, Lexmark's model 1000 Color Jetprinter gives high-speed, 480 dpi black-and-white or full color text and graphics to Windows PC users. At that price, the Lexmark 1,000 would seem to conform to the consumer marketing model which sees personal ink-jets as "word users" for encouraging sales of ink, cartridges and paper, which is where the profit opportunity lies for manufacturers and resellers. For the graphics professional, Epson debuted a new 1,440 by 720 dpi oversized (17-inch by 22-inch) color ink-jet printer — the Epson Stylus Color 3000. The Stylus Color 3000 is more than twice as fast as Epson's previous large format ink-jet — the Color Stylus Pro XL, and comes with a true PostScript Level 2 PowerRIP from Barry Graphics. It is both Mac and Windows compatible. For the networked office, Xerox showed its latest DocuPrint 4255 color laser printer, a new line which radically lowers the cost of high-speed color laser printing, in terms of hardware cost, maintenance, and service and maintenance.

Imation showed a Performance Accelerator for the LS-120 (120MB) floppy drive, which gives performance comparable in speed to a hard drive, and HP demonstrated tape backup systems for enterprise networks.

Imation showed a Performance Accelerator for the LS-120 (120MB) floppy drive, which gives performance comparable in speed to a hard drive, and HP demonstrated tape backup systems for enterprise networks.

### Whither Comdex?

The absence of some of the major PC vendors did lead to speculation that Comdex might be facing future troubles, due to an overcommitted North American computer show calendar. While manufacturers and distributors are certainly more cautious in spending their limited marketing dollars, the scale of exhibitor and attendee interest in the show would seem to argue against any immediate decline in Comdex.

And spending a couple of days walking the floor at a Comdex show is the quickest and most efficient way for readers and business and users to get a clear picture of the latest and best technology available. Comdex/Canada '97 was an excellent preview of the best trends and products in the computer industry for the rest of 1997 and on into 1998. We

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# NC versus PC:

## Who Will Win?



The big story in computing since the early '80s has been the growth of the personal computer as a networked business device in the client-server environment. This success has come about despite the often strong resistance of computer network managers who despised the complexity and unreliability of PC hardware, operating systems and software — compared to the relative simplicity and reliability of high-level operating systems such as UNIX and dumb terminals.

Even as the Windows/Intel-based PC has reached a state of apparently unstoppable supremacy in the computing industry, some major manufacturers are betting on a non-Windows alternative to become the computing mainstream in the next decade. At the recent launch of Oracle's *New York*, the real focus was on the Network Computer (NC) as a solution for big business's computing needs. Oracle's CEO Larry Ellison showed, in hands-on demonstrations, the advantages of server/NC solutions in terms of simplicity and reliability. On stage in front of a live audience, he assembled a network virtually "out-of-the-box," caused a fatal "crash" of a Windows PC by dropping it off a platform (much smoke and flames), and showed how all his data was still safe on the NC alternative. He demonstrated the complete compatibility of Windows and Java applications, by running Windows in emulation on an NC, and transferring Microsoft Word files around easily from PC to NC.

Whenever Microsoft's Bill Gates has been asked about the potential of Network Computers (NCs) versus the PC at recent public events, he has made a face and asked his questioner how many NCs are being sold compared to PCs, and why would users want to run additional platforms to Windows, anyway? Up front, Gates slaps the NC/Java model of computing unmercifully, pouring scorn on it as a deficient technology "not ready," too slow, "Windows does it all bet-

ter, and more computably and flexibly." However, if Gates is investing personal time and energy to driving the bidding competition from Java, this can be interpreted as a good sign that he takes the threat seriously. In fact, Microsoft is playing a double game regarding the NC/PC and Java/Windows controversies. Microsoft makes some of the principal developers' tools for Java software creation, and at the recent Comdex/Canada '97 show in Toronto, some senior Microsoft Canada people strongly disagreed with suggestions that Microsoft was antagonistic to the Java market.

A senior Corel executive claimed that a recent Microsoft purchase of a small Java business software development firm was part of a Microsoft plan to have a Java business software suite ready if the NC market actually begins to take off, echoing a claim by Dale Burger of International Data Corp. (Canada) Ltd. that Gates is covering his bets in the NC market by quietly developing Java products in-house.

### The NC Gets Real

Early versions of NCs were on display, showing a variety of third-party hardware and software devices approved by Network Computer Inc.

Schlumberger announced at New York that it would be the first smart card manufacturer approved for the NC market. With an NC Card, a user can simply insert his or her authorized card into the smart card slot on an NC, and type in a personal identification number (PIN), in a way similar to using an automated teller machine. The user can then access his or her account on the network server, and retrieve, work with and save personal files.

The smart card approach provides a reasonably secure, simple method to offer people a "network passport," which will allow them to use any NC on the network as a full function personal workstation. Schlumberger has also announced an intention to license the Java Virtual Machine technology as its Sole smart card product, to its entire worldwide

### Oracle Ships Oracle8 Database

by Steve Corbett

is a modest incremental launch — 35,000 new users in 45 countries — Oracle Corp. recently officially introduced its Oracle8 database.

"This is nothing less than a new generation of computing," said Larry Ellison, in attendance at Oracle's New York announcement. "Oracle8 is 10 times better than Oracle7, and Oracle7 is 10 times better than any other product on the market," he claimed. "Oracle8 offers exceptional performance of state-of-the-art, at least according to Oracle, in its support of the Network Computer paradigm," said Larry Ellison. "It supports all three more users, 10 times more data and is 10 times faster." Oracle's big drawing card, at least according to Oracle, is its support of the Network Computer paradigm, which is supposed to "allow users to access information from multiple data and application servers to overcome the prohibitive cost and complexity of traditional PC networks," says the company.

Oracle8 is expected to deliver large volumes of various data types over networks. In a statement Ray Lane, Oracle's president and CEO commented, "Oracle8 will be the Network Computing when Windows was the personal computing."

Supported features include:

- distributed queries and updates for data sharing across multiple servers;
  - data replication;
  - data archiving;
  - server-managed backup and recovery;
  - Web support;
  - interactive desktops; timing;
  - graphical print and disk management;
  - transaction pooling and multiprocessing;
  - advanced server-based sorting;
  - security policy enforcement; and,
  - standards support, such as ODBC, Oracle Objects for RLE and JDBC drivers.
- According to Oracle, key data warehousing features include:
- parallel backup and recovery;
  - faster query execution for ROL data marts;
  - partitionable and online, and,
  - parallel insert, update and delete operations.
- The Oracle8 workflow data processing provides corporate partners and internal service providers with standards-based E-mail, document workflow services, and a platform for development.
- On the object front, Oracle states that it supports objects, which the company says

influence the tools involved in modeling complex business applications — increasing productivity. And, as Oracle Image Cartridge, along with short-pulse image retinal cartridges from Wang and Kodak, first users search for images based on characteristics of that image.

Mike Kennedy, a vice-president with the Meta Group, in Burlington, Calif. commented that Oracle's approach to handling objects is "in synch with the market demand."

For potential developers, the Oracle software provides object caching and object mapping. "It enables developers to develop and maintain objects," he said, adding that the object mapping leads to improved performance.

Kennedy contrasted Oracle's strategy to that of its ally with the Universal Server model of handling object types. "It hasn't taken off like you'd like," he said, of Universal Server. "We're actually looking for a problem."

Kennedy noted Oracle's efforts in regards to objects "in appropriate strategy, at an appropriate time."

Oracle says it has trained more than 1,500 database administrators and developers in 27 class across 14 regions.

In the development front, Oracle says its Developer9000 — a rapid development tool to let developers write an application for both client-server and the Web, is certified Pure Java by Microsoft. And Developer9000 is Oracle's library modeling and generation tool.

Oracle now has 360 processors in its beta programs, 1,500 as early adopter programs. A wide variety of vendors have declared support for Oracle in their products, including: Digital Equipment Corp., Hewlett-Packard, Prologix, Sun, Rime and Compaq. For example, with the Company Broadcast Integration tool, Compaq says it simplifies the installation, configuration and optimization of Broadcast Company NT systems.

In a checklist, Patrick Ward, vice president and general manager, enterprise solutions division, Compaq Computer Corp., said his company's customers are seeing greater demands on database servers. "It's more than new demands. Company worked closely with Oracle to provide greater levels of power, flexibility and manage while specifically designed to meet the requirements of a standards-based distributed enterprise architecture."

Oracle was available on these platforms immediately: Windows NT, Solaris, HP-UX, IBM AIX, IBM SP, Siemens FTS and Alpha AXP. Offers even separately ship within 90 days of the product launch. List price starts at US\$2,500 for an eight-user database Oracle users with Microsoft support are eligible for a free upgrade.

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smart card compatibility and easier application development for use with smart cards.

## Consumer Market

Although the mass consumer market for NCs is seen to be an elusive computing, there are some early attempts to find a retail market as well. Thomson Consumer Electronics and RCA have announced a partnership with NetChannel, a personalized Internet content provider that aims to allow information and entertainment access to the Internet to home users via Oracle database and set-top NC technology. Home users are expected to employ a set-top box to access custom info services via the Internet.

## The NC Universe

Oracle and many of its partners have begun announcing the spectrum of hardware and software needed to make the NC option a reality. Citicorp has announced Version 1.7 of its WinFrame thin-client/server solution, aimed at enabling efficient management and delivery of applications from Windows NT servers to NCs. Oracle itself announced its first complete suite of software for NCs in the spring, the NC Desktop. This is a suite including a Java Virtual Machine, Video User Interface, NC version of Netscape Navigator, and NC server software designed to run on inexpensive Intel-based servers. NC client devices are being manufactured by vendors such as Sun Microsystems, IBM and Pines Electric, offering a variety of features, but all, according to Oracle's Larry Ellison, are capable of running the full range of Java applications and file formats.

To facilitate the quick development of NC technology standards, Oracle and Netscape merged their Network Computer and Navis drivers respectively. The new company, named NCI, has the capability of developing standards-based NC software and new "Internet appliances" hardware. HDS Networks Systems Inc. has inserted its WinStation, an ultra-thin client that can run either Java or Windows applications over a network, using about one-seventh the bandwidth of a Windows PC, according to HDS.

All this effort has generated some real sales. Tektronix, being so close on an IDC study, claimed that it sold more than 70,000 X-terminals, networked and network-capable, in 1995, which represented about 27



per cent of the networked computer market in that year.

## Masks Off, Gloves Off

What seems to be going on underneath all the posturing taking place at the dawn of the NC is that most sensible players in the industry have decided they're quite willing to make money off either the Windows/Intel platform, or the NC/Java platform. Gates doesn't gain any immediate benefit from actively promoting the NC or Java, so he doesn't promote it. His proprietary Windows family of operating systems and associated applications software is obviously profitable, so he has nothing to gain by supporting a customer of his rival who is explicitly pushing Java as a Microsoft killer, or at least, a rival.

However, Gates has proven many times that if someone creates a worthwhile software product category or market, he'll direct Microsoft to build or buy the product, to gain a dominant position in that new market.

Microsoft's competitors are in many cases developing both Java and Windows products. Oracle, for instance, has announced Java applications servers for Windows NT. IBM is mainly building both thin client network computers (which run Java, Windows and multimedia terminal software), and low-cost Network PCs.

So, who will win? Well, if the results of the birth of the NC is cheap, networked computing made available to millions of new users, then everybody wins, including Bill Gates. The Microsoft marketing machine has currently figured out how to extract money very efficiently from billions of PC users. It can probably even figure out how to do the same with volumes of NC users, if even conditioned with that problem. ■

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Oracle, teamed with Java.



# Monitor Makers Target Niches

by David Tomko



There was a time when selling a computer monitor was a simple proposition. You sold customers their chosen green phosphors or amber ones. Today, you almost have to go to remote villages to understand the breadth of models that vendors are shipping.

## New Generations Of Flat Panels Arrive

While 14-inch cathode ray tube monitors are nearly extinct, many vendors are offering flat-panel LCDs of that size, and larger.

Samsung Electronics Canada Inc. introduced its 400TFT and 500TFT (34- and 15.1-inch screens, diagonally) models at the

Comdex/Canada show last month in Toronto. These have suggested retail prices of \$4,999 and \$7,999 respectively.

Princeton Graphic Systems also introduced two models at the show, the LE89 and LE90A, both with 13.1-inch versatile areas. Like the Samsung units, these are also pricey (\$3,999 to \$4,175 for the LE series). Princeton spokesperson Delta Zemanian says she doesn't see these becoming competitive with CRT-based monitors in the consumer market until the prices drop to about 1.5 times the cost of an equivalent-sized tube.

However, specialized markets do exist today for these devices, according to Richard Gallegos, Scripte Technologies Inc.'s Canadian distribution manager. Where here, physical size or susceptibility to electromagnetic radiation are bigger factors than price — flat-panel displays are being snapped up, according to Gallegos. Scripte introduced its fifth-generation FT180 at the show. It has an estimated street price of \$3,500. It measures 14.6-inch inches diagonally, weighs 12.8 pounds and is designed so that it can be popped out of the stand and hung on a wall.

NEC Technologies Canada also recently introduced two LCD monitors under its MultiSync LCD brand, including the MultiSync LCD3000. The 20.1-inch active matrix display will support up to 1,280 by 1,024 resolution. The company has also announced a 14-inch LCD400 model. Both will be shipping in August with estimated street prices of \$10,779 and \$3,699, respectively.

And speaking of large flat monitors, one of the more impressive units was Mitsubishi's Luminata, a 40-inch plasma panel, also introduced at the show. The \$18,000 unit will display VGA resolution, is four inches thick and weighs 66 pounds. It is expected to be available in October.

## Bigger And Bigger

The Luminata was just one of several over-size monitors at Mitsubishi's booth. Backed in the corner was the MegaView 50, a rear projection unit that will be available later this year for about \$22,000.

Available now are slightly smaller CRT-

based units, like the 42-inch MegaView 42, which the company claims uses the world's largest mass-produced CRT.

One of the trends with these larger monitors is the inclusion of NTSC input jacks, to allow them to be used in home theatres with DVD-ROM players, and well as plugged into VGA ports and wiring day to viewing screens for corporate presentations.

Princeton's Analisa home monitors, for example, will support computer display resolutions of up to 800 by 600, but also include jacks to which consumers can connect a VCR or DVD player.

Another trend, driven by the same TV/computer convergence, is the wide screen aspect ratio. Samsung Electronics Canada Inc.'s 24009F is a case in point. The wide-screen monitor has a 16:9 aspect ratio, unlike the normal computer screen aspect ratio of 4:3. Because of this, the resolution is a less familiar 1,360 by 768 (instead of 1,024 by 768) and 1,072 by 608 (instead of 800 by 608). A Samsung spokesperson said that beyond the wide-screen movie possibilities, the monitor allows a full two pages to be displayed, a boon for DTP.

## Crowding Up The Mainstream

Expect vendors to start pushing 17-inch monitors big time in the coming months. The evidence of that is the proliferation of models of that size, along with price cuts. ■

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# Nifty Numbers

## Desktop Videoconferencing Is Big In Real Estate and Business Services

A recent report by Computer Intelligence (CI) reported that desktop videoconferencing, although "still in its infancy," is reaching into new market segments, such as the Insurance/Real Estate Agent and Services-to-Business Services market sectors.

These markets are traditionally not major users of centralized videoconferencing, but according to the market research firm, are leading the early adopters of desktop videoconferencing technology. Indeed, according to CI, these sectors now account for approximately 60 per cent of all business business using desktop videoconferencing and approximately 50 per cent of all desktop systems installed.

The survey was conducted by CI between October 1996 and March 1997 of 14,000 business locations in the United States.

But widespread adoption is limited by two factors, said CI: the availability of low-cost, high-speed network bandwidth, and an available base of 486-and-above PCs capable of supporting a videoconferencing application.

CI's research indicates that only 56 per cent, or about 14 million, of the high-performance PCs in use at businesses are at locations that can boast network facilities capable of 56Kbps or higher speeds.



Leading Portable Vendors in Canada (units, 1996)



Source: Dataquest/Mag

## Reader Poll

### Last Issue, we asked:

Which most closely reflects your view of the desktop flat-screen monitor?

- ☐ 16% There is a lot of interest in flat-screen displays, and we expect to see significant growth in demand for these products.
- ☐ 50% Flat-screen displays for the desktop will see adoption in certain markets, but for now won't attract mainstream buyers until the prices come down a little.
- ☐ 34% Flat-screen displays are just a niche market, and are far too expensive for the average consumer.

### This Issue:

PC vendors in the industry certainly have crowded about offering computers that include MMX-based processors to the marketplace. And that technology is also part of newly shipping Pentium II systems. However, Canadian Computer Wholesaler readers have exactly the market may really know or care about

MMX specifically: Are your customers clamoring for MMX systems? Or, not?

### Our question to you:

Which most closely reflects your view of computer purchasers, in relation to MMX?

- ☐ Many consumers are very aware of the technology and technical benefits of MMX and are demanding MMX-based processors on their new systems.
- ☐ Some consumers have a certain awareness of MMX and are interested in MMX systems, because it's viewed as the hot new technology.
- ☐ Many consumers have little knowledge or understanding of MMX.

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# What's in Store for Stores

By David Rosen



What's in store for Canadian computer retailing? Many of the important lessons computer retailers learned last year centered around inventory: you either had too many of the wrong products or too few of the right ones. This year a different situation is emerging. In today's major or break rivalry, the focus is on outlet size and market differentiation.

## Sales Are Growing

Overall, the news is good in the computer retailing business. According to IFA Hayes, senior market analyst for research giant A. C. Nielsen, total Canadian sales of computer merchandise through retailers grew in 1996 to \$3.65 billion, up from \$3.5 billion the year before. But their success didn't come easy, considering the competition from both traditional and non-traditional computer sales organizations.

Canadian computer retailers continue to battle for their share of customers. Computer mega-stores opening up across the country continue to muscle out smaller, independent dealers. As well, non-traditional computer outlets, from bookshops to toy stores, are making inroads into traditional computer retailing, especially for product lines such as books, CD-ROMs and consumer electronics.

Formed from the merger of Colson and Sandilands in 1995, Canadian bookstore giant, Chapters Inc. is becoming a player in the software and CD-ROM market. Although the company won't discuss actual sales numbers, Helena Aalto, the company's director of marketing, says that software sales are now "in the Top 10 sales categories of our stores, often in the Top Five."

Toy stores are also getting into the computer retailing market-place. Worldwide, the Toys R Us chain led the way for toy retailers, posting a triple digit increase in total retail revenue from computer-related merchandise, to US\$64 million in 1996.

## Making A Market

With non-traditional retailers moving in on the market, traditional computer retailers had to do something competitive. "We're among the successful retailers differentiate and carve out a market for themselves — even in the large corporate organizations," explains Tim Billing, Ingram Micro Inc. (Canada)'s director of sales for its Consumer Markets Division. "One organization we're seeing is based on levels of buying expertise: some stores are geared towards the first-time buyer, while others target themselves at second- and subsequent-round buyers." Billing says that everything from the way the stores advertise to the after-sales support policies fall out of these fundamental marketing decisions.

Chain stores, Billing maintains, get people into the store by print advertising, primarily through newspapers. While this works for major retailers with large advertising budgets, Billing says a different strategy is needed for small, independent dealers. "Location and repeat business are keys to a successful small retailer," Billing maintains. "The only way to compete is to have a customer for life."

## Splashed Ads, Slashed Prices

At one end of the computer retailing spectrum is Vancouver-based Future Shop, with 1996 revenues, topping \$1.5 billion. Future Shop made to rely on splashy retail advertising to attract customers into its stores. Once there, low prices are used to transform prospects into customers.

"Our roots really lie in the selection and low-price strategy," explains Eric Christensen, a Future Shop spokesperson. But things are changing for Future Shop as well. "We're focusing more and more on service in the core value that people want, with a new in-store service division, traditional repair service as well as after sales training, support and service." Future Shop's core volume is corporate sales where, Christensen says, large companies can purchase products through a direct sales force.

## Experience Shows In The City

Wend Sullivan, Canadian regional sales manager for Hardy Corp.'s Computer City, explains the company's strategy is technological expertise rather than price. "We're deliberately positioned to go after the more experienced user and serve their needs, as well as

the first-time buyer," says Sullivan.

"Computer City tends to be the place you go to get the latest technology, rather than the cheapest machines on the market," Sullivan maintains. "We will get down and battle at the \$1,500 to \$2,000 price point but, as we bring in top-of-the-line IBM machines and Pentium 200s, we can't keep those in stock."

According to Sullivan, the look and feel of each Computer City store has been designed specifically for its intended market. Product mix and knowledgeable staff are obviously key, but Sullivan claims extra sales staff in the labor-intensive upgrades and software departments are also important to the chain's success. Computer City also plans to upgrade the look and feel of each of its stores over the next 12 months. "We'll have separate sections for small office, home office, Internet and even kids," Sullivan predicted.

## Keeping The Customer Happy

Specialization and differentiation are two words that Mylon Kesten knows well. President of Toronto's CD-ROM Store, Kesten specializes in, well — CD-ROMs. The retail store carries hundreds of titles divided into three product categories: home, entertainment, home office and home education. "We strive client over services here," Kesten explains.

"We're known as a specialty retailer, not only in the community in general, but to other computer stores as well."

Kesten suggests a major trend in the business is software developer consolidation. As an example, he cites the recent purchase of software developers Division & Associates, Sierra On-Line and Knowledge Adventure by CUC International. Another trend he sees is the changing gender mix of his customers. "Myst was the first major game that was attractive to both men and women," he says. Many developers are now discovering that girls as well as boys can be key buyers.

To paraphrase an overused proverb: the only thing that stays the same in the world of computer retailing is change. And while change is important in the Canadian computer landscape, successful retailers find that differentiation, segmentation and, of course, luck, are just as important. ■

*David Rosen is a Contributing Editor at Canada Computer! He can be reached at DavidP2@aol.com.*



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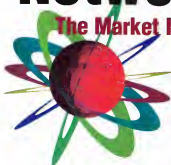
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# Networking

## The Market Is Now Everywhere

by Jeff Evans



The pervasive spread of Internet networking (Web browsers and the HTML standard) worldwide is turning the promise of 'information at your fingertips' into a reality.

For most PC users, computer networking technology is becoming a basic, part of daily life. For computer retailers at all levels, as part of any computer sale, an ability to accommodate customers' needs for a networking solution is an increasingly critical skill. From consumer retailers through VARs, and on up to large-scale solution providers/system integrators, networking has become a key challenge and opportunity in the information technology market of the late '90s.

Fortunately, along with increasing demand for networking solutions, networking technology has become cheaper, simpler to integrate and maintain, and much higher in capacity, flexibility, and interoperability (compatibility with other network systems) in recent years.

### PC Serendipity

The PC was originally conceived as a stand-alone, unconnected personal information tool, and for that reason, it was generally despised by networked computing professionals: 'Why would anyone want their own computer?' was a common, disbelieving response of mainframe computing professionals looking at the first feeble PCs. The pros undervalued the power of networked computing, and couldn't imagine why anyone would want to try to go it alone on a disconnected, low-powered, inferior system.

From the enterprise computing perspective, client/server computing came about on the PC as a side of itself. Even though the PC is not inherently a good platform for networking technology, with enough time, money and 'hacking' it has been shaped into a tolerably effective part of real large-scale network computing. The advent of the Internet, especially the World Wide Web, has allowed the PC to tap into a uni-

versal networking infrastructure, based on non-proprietary, universal standards. This single factor has made networking the PC an exploiting opportunity for retailers. However, the virtue of the PC's ubiquity—in its ability to accommodate new needs and technologies—has also generated problems, one of the most basic of which is cost.

A raft of recent studies by consulting firms such as the Gartner Group have quantified the big fly in the PC omniscient: maintaining a PC on a network is painfully expensive. According to the experts' best estimates, the price tag on the real cost of ownership of a networked PC is US\$8,000 to US\$12,000 per year. Only 10 to 15 percent of this cost is for hardware. The rest is for training, network infrastructure, software, maintenance, and time wasted fiddling around trying to get the system to work properly (or 'fixing,' as it is technically described).

After a decade of client/server computing, gradually bringing the Windows PC into the mainstream of business computing, network administrators are now facing the possibility of having to adopt entirely new technologies such as Network Computers (NCs) and Java software. This creates new opportunities for retailers, but also risks: betting on the wrong product can be costly for both end-users and vendors.

### Idiot Proofing and Security

The more widespread and essential computing becomes, the more concern there is for maintaining network operations. Demand for products to assist with the reliability and security of networking increases proportionately. To maintain the performance of NT systems, for example, Executive Software has done well selling its Diskreaper 2.0 for Windows NT 3.0. The markets for anti-virus software, firewalls, software usage monitoring programs, encryption, and secure commerce services are all experiencing major growth.

### Scaling Up and Down

At the high-end of enterprise computing, the capacity of network databases and servers to handle vast amounts of information, and high volumes of queries or transactions is increasing exponentially. Sun has announced servers that can manage many terabytes of data. At a Serendipity Day, Microsoft showed off



partners such as Tandem, Compaq and Digital performing tasks such as managing multi-terabyte map databases, and processing more than one billion transactions per day. At the lower end of the scale, there is a strong trend towards supplying network solutions for mid- to small-sized businesses that are almost 'out-of-the-box' commodities. The premise is that the user can simply turn on the server, string network cable, and plug in PCs or NCs. Mission-critical networks for small offices and even homes are possible, using products such as D-Link's 'Hubby'.

Compaq, IBM and other vendors have established divisions and developed products to server the SOHO networking market.

### Faster Speeds, New Applications

In the past five years, there has been a constant demand for more network speed, to handle increased numbers of users employing traditional business applications, and also to enable new, even more data-intensive applications. Most current Ethernet network interface cards (NICs) are compatible with both 10Mbps and 100Mbps megabit networks. Many PC card manufacturers making cards for modems, such as Dectech, U.S. Robotics and Winmodem, make cards/cards that include both a 33.6Kbps or 56Kbps telephone line modem, and a 10/100Mbps Ethernet card.

IBM, in addition to a full spectrum of Ethernet and Token Ring networking products, has recently offered a line of high-speed ATM (Asynchronous Transfer Mode) networking solutions to desktop PC and workstation users. ATM has a number of advantages over traditional Ethernet and Token Ring technology (higher speed, and the ability to 'guarantee' uninterrupted bandwidth to priority users), and, according to IBM, has come down in price to the point where it is comparable to Ethernet.

Sales of video-on-demand cameras and systems, from vendors such as PermaTel, Cami, U.S. Robotics and Connectix have consistently increased due to a combination of better video compression formats, and higher bandwidth phone lines (such as ISDN) and networks.

Digital Equipment Corp., in particular, has gained expertise in video server technology, for video-on-demand applications. The next wave of high-speed networking involves ultra-fast Ethernet or ATM networks using fibre optic cables to support 1GB networks.

### Outsourcing

With the growth of Internet-based networking for business, one approach to managing networks that many firms have investigated is to contract their network needs out to NSPs (Network Service Providers).

The logic of this approach is based on the fact that establishing a full-function network administration in-house is a major investment, in personnel, technical infrastructure and training. With standard-based Internet technology, it's possible for a firm to test the specifications of what it needs in terms of networking, and then talk to a variety of NSPs to get quotes. Once a contract with an NSP has been agreed to, it's up to the NSP to maintain the integrity and reliability of the system. Some major players have jumped into the outsourcing NSP market, including Netcom and other (which both started as personal Internet Service Providers). Clear in particular has achieved a remarkable transformation, shedding much of its individual dial-up user business, and developing the commercial network business to the point where it is now 80 per cent of after revenue. Markham, Ontario-based PSNet bills itself to the corporate world as "Your Internet Business Partner," offering a range of services such as "LAN On Demand" (TCP/IP connectivity from an office to the Internet) and private IP networks with dedicated Internet access, for the creation of cor-



Picture by Jodi/Sa

porate Intranets. IRON Corp., which originally started out offering office technology services such as copier and printer maintenance, has become a major international provider of business networking services as well.

Increasingly, it will be difficult for retailers to simply take orders for boxes on shelves. That kind of selling will be mostly done direct from vendors, either over the Internet. For the channel to benefit from the opportunities presented by networking, retailers will have to be able to add value based on expertise in providing network solutions. That's the good news, and the bad. ☐

*Jeff Evans is Associate Editor of Canadian Computer Wholesaler. He can be reached at [jeff@ccw.com](mailto:jeff@ccw.com).*



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# LARGE MONITORS

## Market Broadens For Quality Big Displays

by Jezz Shook, Tim Daugherty-Walker and Steve Halvick

Working with on a 14-inch monitor has become a suffocating experience in a low-resolution world. This is an opportune time for your customers to invest in a new display.

Indeed, a display is one component that is truly multi-platform and can last many generations of computers. Larger monitors have become the norm, and prices are steadily falling, while quality continues to rise. Most dealers are now packaging and marketing 15-inch displays instead of the so-called "standard" 14-inch offerings.

Cathode Ray Tube (CRT) technology may seem dated by PC standards, but monitors actually have been changing and improving dramatically in recent years. New innovations in refined production materials and processes have made monitors cost-effective, sharper, brighter, and more precise and distortion resistant. They emit fewer worrisome electromagnetic emissions than ever before as well. In addition, many monitors now come standard with over-luminous features such as digital controls and energy-saving power management. It is quite surprising how much CRT that money can buy.

Recent improvements have made monitor-buying decisions more complicated, with hundreds of displays from which to choose, varying greatly in features, performance, and price.

### Visually, Bigger Is Better

The choice of size must fit the application, budget and footprint. Realistically, most aging 14-inch monitors support resolutions of 800 by 600 and even 1,024 by 768 pixel resolutions in addition to standard VGA's 640 by 480. But increasing your resolution without increasing your screen area has its limita-

tions. Garbage in, garbage out! Displaying more information on the same amount of space decreases the relative size of items on the display to the point that text may become unreadable. And legibility is definitely an issue for your customer.

Unfortunately, a 15-inch monitor doesn't realistically permit any higher resolution than a 14-inch display. As a result, the 17-inch monitor is quickly becoming the norm for business PCs, nonvisual graphics professionals (Regular business users who are writing proposals, creating spreadsheets, and creating presentations, see far better on a 17-inch than a 15-inch display. When reaching writing multiple windows, or viewing a full-page layout for a newsletter or other desktop-publishing jobs, working at 1,024 by 768 is desirable. Most 17-inch screens also let the user sample the sights at 1,280 by 1,024 resolution — more than quadruple the working area of the 14-inch VGA.

For these applications, the 17-inch monitor is a savvy choice. For those to whom budget is not an issue, or if they're CAD/CAM or graphic professionals — the 20-inch display is a wise choice. But it isn't always popular, because of its expensive price tag, nonstandard size, weight and footprint.

### Plug and Play

Thanks to Microsoft Windows 95's Plug and Play, the job of installing a new monitor or matching it to other system components has become easier. The Plug and Play standard synchronizes the PC with the display through a data channel (DDC) incorporated in the VGA connector. The monitor uses the DDC to communicate its current and maximum area rates to the PC. This allows the graphics card on the PC to lock in the optimum settings

and highest possible refresh rate, without any reference to technical documentation. Another feature that is quite impressive is VESA's Enhanced Video Connector (EVC), designed to replace the familiar 15-pin and nine three-cable DMC connectors. EVC will not only support higher bandwidth than existing cables, but also will let your customers plug multimedia input devices such as cameras or microphones directly into a monitor.

### Health and Safety

Electrical electromagnetic emissions from a monitor are a concern for your customers (and many would argue they should be), so recommend a monitor that complies with the MPR-II or TCO standards. These Swedish guidelines set limits on a monitor's extremely low-frequency (ELF) and very low-frequency (VLF) emissions.

MPR-II compliance adds little to a monitor's cost, since manufacturers only need to provide better shielding inside the monitor's case and add compensating magnets to cancel out the fields created by the powerful electromagnets that direct the electron beams. The stricter TCO standard specifies an emissions level even lower than MPR-II, but it adds directly in front of the monitor — which costs more, due to the difficulty of shielding the monitor's face with a special coating.

### Our Tests

We used DisplayMatic by Sonnet Technologies (1-800-503-6333 or (908) 743-6846) to run a series of test and color patterns on each monitor. DisplayMatic is an excellent diagnostic tool designed to aid users in easily determining if their monitors and video cards are performing as they should.

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### Apple AppleVision 1710AV

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PC/P displays  
National advertising  
One-year warranty includes parts and labor  
Toll-free tech support  
Dedicated technical FAQs  
Dealer-specific space on the Web site

#### Deals and Availability

There is a standard 15 percent off dealer discount, with a maximum of one unit per product family.

### Azure 17M+

#### Support for Resellers

Three-year warranty includes parts and labor  
Toll-free tech support

#### Reseller Comments: Yes

#### Editors' Notes

Azure offers a low-cost 17-inch monitor with a 0.25-mm dot pitch and a 15.1-inch viewable screen. The maximum resolution on this unit is 1,280 by 1,024 at 60Hz, which automatically places this par-

#### Editors' Notes

The 1710AV from Apple is sure to please any Mac user. It offers a viewable screen size of 16.1 inches, a dot pitch of 0.25-mm and a maximum resolution of 1,280 by 1,024 at 75Hz. The monitor features built-in speakers and a microphone for out-of-the-box functionality, and is MPE-II compliant. It uses a Sony Trinitron tube to deliver sharp images with great clarity. When not in use, the monitor's power saving mode puts it into a zero-watt sleep state, saving considerable amounts of energy. The 1710AV has an estimated street price of \$1,299.



ticular mode into "use only when absolutely required." Test and color patterns on our tests proved to be quite good. The vertical frequency ranges on this monitor are from 50 to 90Hz, with the horizontal range being 30 to 63kHz. The unit weighs 16 kg and consumes a maximum of 120W while being used.



### Art Media TM1885T

#### Support for Resellers

Reseller referrals  
Three-year warranty includes parts and labor  
Toll-free tech support

#### Editors' Notes

ArtMedia's new TM1885T is aimed at professionals in the CAD/CAM/CAE industry, as well as at high-end graphic designers and users of advanced business applications. The tube in this model

is of the Trinitron variety, offering a dot pitch of 0.25-mm. Horizontal scan rates range from 30 to 63kHz, while its vertical refresh rates go as high as 134Hz. At its extreme resolution, the TM1885T is capable of 1,600 by 1,200 at 60Hz, although the optimum operating resolution for this monitor is 1280 by 1024 at a flicker-free 75Hz. The on-screen display (OSD) offers a wide variety of user-configurable settings, and is easy to operate. The suggested retail price on this monitor is \$1,398 and comes standard with a three-year limited warranty.

### Acer AcerView 781e

#### Support for Resellers

Co-op advertising  
Three-year limited warranty includes three-year parts and one-year labor

#### Reseller Comments: Yes

#### Editors' Notes

Acer's latest 17-inch model is the 781e. This monitor offers a reasonable compromise between quality and performance. With a 0.25-inch viewable screen and a 0.25-mm dot pitch, the monitor is cap-

able of delivering up to 1,280 by 1,024 at a solid 75Hz refresh rate for great-looking images. It features four-color temperature presets, multi-configurable options through the easy-to-use OSD, and vertical refresh rates as high as 120Hz. The 781e weighs 16 kg. Test and color patterns went sharp, with good quality and no problems encountered.



### Samsung 700p

#### Support for Resellers

Reseller referrals  
Three-year warranty includes parts and labor  
Toll-free tech support

#### Deals and Availability: Yes

#### Editors' Notes

With a dot pitch of 0.25-mm and a viewable screen size of 15.7 inches, Samsung designed the 700p to deliver a slew of features

combined with performance. The monitor features an exceptionally clear screen capable of producing some of the best images we've seen in this roundup. Vertical refresh rates are available up to a VESA recommended 85Hz at 1,024 by 768 for comfortable viewing with plenty of screen real estate. The 700p is capable of even higher resolutions up to 1,280 by 1,024 at a refresh rate of 75Hz, although we noticed some focus loss near the corners in this mode. All in all, the 700p offers a good balance of features, performance, at a price that won't set your customers too far back.

# KDS



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**Global Player** Purchase your monitor confidently knowing you have reliable cutting edge components because KDS manufactures over 15% of the WORLD production of fly-backs and yokes, even supplying other world recognized monitor manufacturers.

### WINDOWS

(Oct. 1996) "KDS's new V5X-7 monitor is a feast for the eyes with its clear, crisp picture and clean, modern design."

### MacUser

(Dec. 1996) Awarded 4 stars (★★★★) "Out of a field of 43 17" monitors, only 3 scored a higher mouse rating."

### BYTE January 1997

"Out of 24 monitors tested Byte said the KDS 17" VS-7 was one of the lower cost monitors deserving mention as good choices for home systems."

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# OKIDATA

**Daytek DT-1331D****Support For Resellers:**

Marketing funds  
Reseller referrals  
POP displays  
National advertising  
Three-year warranty includes parts and labor  
Toll-free tech support

**Volume Discounts:** Available**Demo Unit Availability:** Yes**Editor's Notes:**

The DT-1331D from Daytek is a great example of a low-cost monitor without a huge trade-off on quality. This monitor offers a 16.3-inch viewable screen size — the largest in its class among this

month's contenders. It features a 0.28-

mm dot pitch, with a maximum vertical refresh rate of 90Hz. At 1,280 by 1,024, the maximum attainable refresh rate is just 60Hz, so we encountered tearing; this monitor is 1,024 by 768 for a flicker-free display. Weighing in at 17 kg and with a power consumption of 100W, this monitor is a great option for anyone looking to get good performance at a low price. Daytek expects to have a brand new model which should be available by the time you read this. The new model will employ a Mitsubishi DiamondTron tube.

**Eizo FX-C6****Reseller Authorization:** Required**Support For Resellers:**

Reseller referrals  
Demo program for resellers on CD-ROM  
Three-year warranty includes parts and labor

**Volume Discounts:** Yes**Demo Unit Availability:** One demo unit per model per location**Editor's Notes:**

The new FX-C6 is capable of resolutions as high as 1,600 by 1,200 at 60Hz. Vertical refresh rates on this monitor go all the way up to 100Hz for the ultimate flicker-free display. The FX-C6 has a 15.6-

inch viewable screen with a dot pitch

of 0.26-mm for sharp text and graphics. It comes with preset color temperature settings ranging from 4,000K to 10,000K. The on-screen display is available in a total of six different languages for the ultimate in flexibility. Color reproduction and image quality were both exceptional. There were no noticeable focus problems at all when we verified it with a resolution of 1,280 by 1,024. Even 1,600 by 1,200 proved to be easily readable with small text. If performance is your first priority, Eizo monitors are unmatched.

**Goldstar StudioWorks 70D****Support For Resellers:**

Marketing funds  
Reseller referrals  
Three-year warranty includes parts and labor  
Toll-free tech support

**Volume Discounts:** Arranged through distributors**Demo Unit Availability:** Yes, via distributors or Goldstar**Editor's Notes:**

This 16-inch viewable screen offers a fine dot pitch of 0.25-mm and refresh rates up to 100Hz. The maximum attainable resolution on this monitor is 1,600 by 1,280 at 60Hz, but we noticed focus degra-

dation considerably at that resolution. At

1,280 by 1,024, images and small text were still acceptable, with a slight amount of blurring at the corners. The monitor has two color presets at 9300 and 7200 Kelvin, has an on-screen OSD which is very thorough and features 40 memory settings. Of these settings, 16 are preset at the factory, leaving the user a total of 24 remaining — still far more than most users would need. That pattern was good overall, although the two dangle wires were noticeable in all times.

**Hyundai DeluxeScan 1310****Reseller Authorization:** Required**Support For Resellers:**

Marketing funds  
Reseller referrals  
POP displays  
Three-year warranty includes parts and labor and picture tube  
Toll-free tech support

**Volume Discounts:** Yes**Demo Unit Availability:** One demo unit per model per location**Editor's Notes:**

Although the dot pitch on this model is 0.28-mm with a viewable screen size of 15.6-inches, it managed to produce some of the best

images and text patterns we've seen. At 1,280 by 1,024, focus was exceptionally good, although only at 60Hz. The maximum vertical refresh rate on this monitor is 150Hz.

If you try to exceed either a refresh rate of resolution, the OSD will immediately give you a message saying "Out of Range." Preset color temperatures are for 9300 and 6500 degrees Kelvin, plus one additional setting for a user-defined combination. Compliance is met with both NAB-0 and the TCO'92 standards. This monitor is definitely worth a second look.





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
# Large Monitors

|                               | Acorn<br>AcarView 31in                           | Apple<br>AppleVision<br>1716W                    | ArtMedia<br>TW185T                                     | Avance<br>17M4                                     | Digitaltek<br>DT-17210                                     | Eizo<br>PX-C8                                  |
|-------------------------------|--|--|--|--|--|--|
| Viewable screen size          | 15.4   | 16.1   | 16   | 15.4   | 15.4   | 15.5   |
| Dot pitch                     | 0.26   | 0.26   | 0.25   | 0.26   | 0.26   | 0.26   |
| Screen coating                | AG, AS   | AG, AS   | AG, AR   | AG, AS   | AG, AS   | AG, AS   |
| Horizontal freq. range (kHz)  | 30-66  | 30-62  | 30-65  | 30-65  | 30-66  | 27-66  |
| Vertical freq. range (kHz)    | 50-120   | 50-120   | 48-140   | 50-60  | 40-80  | 50-160   |
| Max. resolution, at frequency | 1,280x1,024, 75Hz                                | 1,280x1,024, 75Hz                                | 1,080x1,200, 60Hz                                      | 1,280x1,024, 60Hz                                  | 1,280x1,024, 60Hz  | 1,600x1,200, 60Hz                              |
| Max. power consumption (W)    | 135  | 130  | 140  | 120  | 100  | 100  |
| Weight (kg)                   | 18   |  | 25   | 16   | 17   | 16.5   |
| On-Screen Display             | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  |
| Contact                       | (800) 471-6226                                   | 1-800-252-2224                                   | (204) 424-2011   | (855) 948-6600                                     | 1-800-329-0881   | 1-800-882-2222                                 |
| Internet                      | <a href="http://www.acorn.com">www.acorn.com</a> | <a href="http://www.apple.com">www.apple.com</a> | <a href="http://www.artmedia.com">www.artmedia.com</a> | <a href="http://www.avance.com">www.avance.com</a> | <a href="http://www.digitaltek.com">www.digitaltek.com</a> | <a href="http://www.eizo.com">www.eizo.com</a> |
| Warranty                      | 3 years  | 3 years  | 3 years  | 3 years  | 3 years  | 3 years  |
| Suggested Retail Price        | \$850  |  | \$1,230  |  | \$640  |  |
| Street Price (or estimate)    | \$600  | \$1,200  |  | \$600  | \$710  | \$900  |
| Retailer Price                | \$700  |  |  | \$590  |  |  |

|                               | Mitsubishi<br>Diamond<br>Pro 67TXM                                 | Moscow<br>SM785F                                       | NEC<br>P750                                  | Nokia<br>647Xacc                                 | Optiquest<br>V773  | Panasonic<br>PanaMedia PM17                            |
|-------------------------------|--|--|--|--|--|--|
| Viewable screen size          | 16   | 16   | 15.4   | 15.1   | 15.4   | 16   |
| Dot pitch                     | 0.25   | 0.25   | 0.25   | 0.25   | 0.26   | 0.27   |
| Screen coating                | AG, AS   | AG, AS, AR   | AS   | AG, AS   | AG, AS   | AG, AS, AR   |
| Horizontal freq. range (kHz)  | 30-65  | 30-65  | 28-64  | 31-67  | 31-65  | 28-64  |
| Vertical freq. range (kHz)    | 50-120   | 50-120   | 50-100                                       | 50-120   | 50-100   | 38-100   |
| Max. resolution, at frequency | 1,600x1,200, 60Hz  | 1,280x1,024, 60Hz                                      | 1,600x1,200, 75Hz                            | 1,600x1,200, 75Hz                                | 1,280x1,024, 60Hz  | 1,280x1,024, 60Hz                                      |
| Max. power consumption (W)    | 160  | 85   |  | 150  | 110  | 120  |
| Weight (kg)                   | 22   | 16.8   | 20   | 22   | 17   | 16.5   |
| On-Screen Display             | Yes  | Yes  | Yes  | Yes  | Yes  | Yes  |
| Contact                       | 1-800-492-6407   | (800) 705-3960   | 1-800-366-0434                               | 1-800-286-0343                                   | (416) 461-7888   | (800) 624-0800   |
| Internet                      | <a href="http://www.mitsubishicons.com">www.mitsubishicons.com</a> | <a href="http://www.monitors.com">www.monitors.com</a> | <a href="http://www.nec.com">www.nec.com</a> | <a href="http://www.nokia.com">www.nokia.com</a> | <a href="http://www.optiquest.com">www.optiquest.com</a> | <a href="http://www.panasonic.ca">www.panasonic.ca</a> |
| Warranty                      | 3 years  | 3 years  | 3 years                                      | 3 years  | 3 years  | 3 years  |
| Suggested Retail Price        | \$1,490  |  | \$1,230                                      |  | \$890  | \$600  |
| Street Price (or estimate)    |  | \$670  |  | \$1,100  | \$690  | \$600  |
| Retailer Price                |  |  |  |  |  |  |

Agos: AG — anti-glare, AS — anti static, AR — anti-reflective  
All prices shown are in Canadian dollars, unless otherwise indicated

| Gateway<br>Softworks 710 | Mystral<br>DeluxeScan<br>12B+ | IBM<br>672        | Syerra<br>INT-5017E | NDS<br>VS-3       |  KTX<br>TopScan | MAS International<br>DV17 |
|--------------------------|-------------------------------|-------------------|---------------------|-------------------|--|---------------------------|
| 16                       | 16.7                          | 16.7              | 16                  | 16.4              | 15.7   | 16.1                      |
| 0.25                     | 0.25                          | 0.25              | 0.25                | 0.25              | 0.25   | 0.25                      |
| AG,AS                    | AG,AS                         | AG,AS             | AG,AR,AS            | AG,AS             | AG,AS  | AG,AS                     |
| 20-45                    | 20-35                         | 20-40             | 27-53               | 20-25             | 20-35  | 20-35                     |
| 50-120                   | 50-100                        | 50-120            | 50-100              | 50-120            | 50-85  | 50-100                    |
| 1,000x1,200, 60Hz        | 1,200x1,200, 60Hz             | 1,200x1,024, 60Hz | 1,000x1,200, 75Hz   | 1,000x1,200, 75Hz | 1,200x1,024, 60Hz  | 1,000x1,200, 60Hz         |
| 120                      | 90                            |                   | 150                 | 150               | 120  | 120                       |
| 20.5                     | 15.0                          | 17.7              | 20                  | 16.7              | 17.5   | 17.5                      |
| Yes                      | Yes                           | Yes               | Yes                 | Yes               | Yes  | Yes                       |
| (800) 470-8552           | 1-800-340-4992                | 1-800-485-7999    | (214) 927-8340      | 1-800-825-0201    | (800) 546-0000   | (604) 261-1182            |
| www.gateway.com          | www.hsc.ca/hr                 | www.pc.ibm.com    | www.syerra.com      | www.ktxcanada.ca  | www.ktx.net/us   | www.masinternational.com  |
| 3 years                  | 3 years                       | 3 years           | 3 years             | 3 years           | 3 years  | 3 years                   |
| \$750                    |                               |                   | \$1,200             |                   |  | \$1,100                   |
| \$200                    | \$600                         | \$1,070           | \$1,700             | \$940             | \$500  |                           |
|                          |                               |                   | \$800               |                   | \$340  | \$300                     |

| Philips<br>Brilliance 107 | Samsung<br>700p   | Seagate<br>PT54   |  Sony<br>17SE2 | TTX<br>77-108     | ViewSonic<br>G771 |
|---------------------------|-------------------|-------------------|---|-------------------|-------------------|
| 16.1                      | 15.7              | 15.8              | 15.0  | 15.75             | 15                |
| 0.25                      | 0.25              | 0.25              | 0.25  | 0.25              | 0.27              |
| AG,AR,AS                  | AG,AR             | AG                | AG,AR   | AG,AR,AS          | AG,AS             |
| 20-35                     | 20-35             | 20-47             | 20-35   | 20-35             | 20-30             |
| 50-100                    | 50-100            | 50-120            | 40-120  | 50-100            | 60-100            |
| 1,000x1,200, 60Hz         | 1,200x1,024, 75Hz | 1,000x1,200, 75Hz | 1,000x1,200, 60Hz   | 1,000x1,200, 60Hz | 1,200x1,024, 60Hz |
| 115                       | 120               | 125               | 140   | 120               | 95                |
| 21                        | 21                | 19.8              | 20  | 17.5              | 16.7              |
| No                        | Yes               | Yes               | Yes   | Yes               | Yes               |
| (877) 232-5541            | (800) 542-8838    | 1-800-710-2078    | (800) 400-4114  | (202) 238-8010    | (416) 451-1046    |
| www.philips.com           | www.samsung.com   | www.seagate.com   | www.sony.com  | www.ttxcanada.com | www.viewsonic.com |
| 3 years                   | 3 years           | 3 years           | 3 years   | 3 years           | 3 years           |
| \$1,100                   | \$1,250           |                   | \$950   | \$950             | \$875             |
| \$1,100                   | \$1,000           | \$920             | \$1,200   | \$550             | \$500             |
| \$1,000                   |                   |                   |   |                   |                   |

## KTC TopScan

**Support For Resellers:**

Three-year warranty includes parts and labor.  
National advertising.  
Web site includes technical information and drivers.

**Editors' Notes:**

If you're got a budget-conscious shopper, KTC has just the thing for you. With a viewable screen size of 15.1 inches and a 0.26-mm dot pitch, this monitor produced good quality images up to 1,024 by 768, with a slight focus loss around the edges and corners. Anything

above this resolution is not recommended. The monitor features a handy add-on feature which runs through all of the options on the on-screen display, and runs a self test on each of them. Vertical refresh rates are available as high as 90Hz, with a horizontal scanning frequency of up to 60kHz.



## KDS VS-9

**Support For Resellers:**

Co-op advertising.  
Toll-free for us to receive POP displays.  
Three-year warranty includes parts and labor.  
Toll free tech support.

**Volume Discounts:** Yes, arranged through the distributor.

**Demo Unit Availability:**

KDS does not offer a national demo program but supports the distributors when they request demo for volume opportunities.

**Editors' Notes:**

The KDS VS-9 packs a lot of punch for a great price. To start off, it

has a viewable screen size of 15.1 inches, with a dot pitch of 0.26-mm. Refresh rates up to 130Hz are supported, with the maximum resolution being an incredible 1,600 by 1,200 at 75Hz. The OSD is excellent with very easy to read fonts and icons, making it very easy to use. Color temperatures are preset at 6,500 and 9,300 Kelvin, as well as at room for an additional user defined setting.

The VS-9 produced some very good quality images, with sharp text. Focus was exceptional at 1,280 by 1,024. For a mix of great features, good performance and a great price, look no further.



## MAG Innovision

**Support For Resellers:**

Marketing funds.  
Reseller referrals.  
Three-year warranty includes parts and labor.  
Toll-free tech support.

**Volume Discounts:** Yes.

**Demo Unit Availability:**

Yes, select models.

**Editors' Notes:**

The new Mag D717 features a larger viewable screen of 16.1

inches with a dot pitch of 0.26-mm capable of resolutions as high as 1,600 by 1,200 at 60Hz. On the front of the monitor is an interesting twist rarely encountered. The OSD options are controlled via a wheel which offers access to all the various features in a smooth and easy to control manner. Test patterns showed that the monitor is well-designed, with only a slight amount of focus loss at the very high resolution. MAG recommends this monitor for high-end corporate use, business graphics or commercial imaging. The D717 is a good choice regardless of its intended use because it offers professional display capabilities at a price that's not restricted to corporate use only.



## Moxie SM785P

**Support For Resellers:**

Co-op advertising.  
Reseller referrals.  
POP displays.  
Three-year warranty includes parts and labor.

**Volume Discounts:** Yes.

**Demo Unit Availability:** Yes, with some restrictions.

**Editors' Notes:**

This model features a 16-inch viewable screen with a dot pitch of 0.26-mm. The maximum resolution is 1,280 by 1,024 at 60Hz,

meaning use that setting only for short periods of time when required. With a vertical frequency range of up to 120Hz, all lower resolutions will provide flicker-free displays. When compared to typical 17-inch monitors, the Moxie SM785P occupies considerably less desktop space, while still providing a viewable screen of 16 inches. The unit consumes only 95W of power, and weighs 16.8 kg.

## Sony 17S12

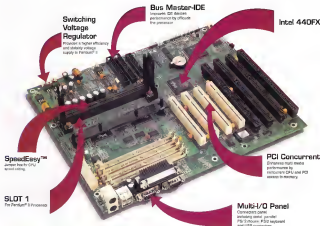
**Editors' Notes:**

Using Sony's very own TruScan tube technology, the 17S12 has a 15.8-inch viewable display with a dot pitch of 0.25-mm. Resolutions as high as 1,600 by 1,280 are available at 60Hz, with additional support for all common VESA modes for a true flicker-free display. There's no masking a Sony monitor. Just by working

with one for a few short minutes you quickly begin to appreciate its many features. This on-screen display gives your customer complete control over everything imaginable from more reduction to convergence adjustments. Designed for high-end graphics such as CAD/CAM, the 17S12 isn't available at bargain prices, but is definitely a worthwhile investment.

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Reseller referrals  
Three-year warranty includes parts and labor  
Toll-free tech support

**Volume Discounts:** There is free shipping on five or more units, and a price break after 25 units.

**Same Day Availability:** There is reduced pricing for same units.

**Editor's Note:**

The MT-9017E features a 16-inch viewable display with a fine dot

pitch of 0.25-mm. Its maximum resolution is at an extreme 1,600 by 1,200 while maintaining an impressive refresh rate of 75Hz. It goes without saying that the best patterns we produced on this monitor were without a doubt the best that money can buy. The OSD offers complete control over anything and everything that you could ever want to configure. Focus loss was not noticeable until we hit the really high resolution of 1,600 by 1,200, at which point it was barely noticeable — especially when compared to others in this roundup. Although these monitors aren't cheap, they are every graphics professional's dream.

**NEC P750****Support For Resellers**

Co-op advertising  
Reseller referrals  
POP displays  
Three-year warranty includes parts and labor  
Dedicated technical 888  
Toll-free fax-back information service

**Volume Discounts:** Negotiated with distributor

**Same Day Availability:** Yes

**Editor's Note:**

With a 15.6-inch viewable screen and a 0.25-mm dot pitch, images

were sharp with vivid colors at any resolution. We were surprised to see how good the focus was when we switched it to 1,600 by 1,200. At this resolution, the monitor can handle a refresh rate of an exceptional 75Hz. The OSD is easy to use and offers a wide range of configurable options. There are five color temperature presets, each one also being user configurable. This monitor is more on the expensive side, but if performance is your number one concern, it leaves little to be desired.

**Nokia 4475arc****Support For Resellers**

Marketing funds  
Reseller referrals  
POP displays  
National advertising  
Three-year warranty includes parts and labor  
Dedicated technical 888  
Dedicated specific space on the Web site

**Volume Discounts:** Yes, depending on opportunity.

**Same Day Availability:** Yes

**Editor's Note:**

This new model has a 15.7-inch viewable screen with a fine dot pitch of 0.25-mm. It is capable of an impressive 1,600 by 1,200 at 72Hz for super-line images without flicker. Although at this extreme resolution we did notice some degradation in focus, it was only a

slight amount. At 1,280 by 1,024 the monitor produced excellent images and test patterns. Vertical refresh rates can go up to 150Hz when at lower resolutions for truly flicker-free displays. The on-screen display is configurable in seven different languages and is very easy to use. There are two custom color temperature profiles as well as seven preset values. Because of the Thomson take, the two damper wires are noticeable, although so much so that they are on any other model with a similar take. If multimedia and videoconferencing are something your customer desires, this monitor was made with them in mind. The 4475arc incorporates speakers, a microphone, and even a color video camera into the unit.

**Philips Brilliance 107****Support For Resellers**

Marketing funds  
Reseller referrals  
POP displays  
Three-year warranty includes parts and labor  
Toll-free tech support

**Volume Discounts:** Yes

**Same Day Availability:** Yes, a 30-day loan

**Editor's Note:**

The Brilliance 107 features a 15.9-inch viewable display, a dot pitch of 0.26-mm and a maximum resolution of 1,600 by 1,280 at 60Hz.

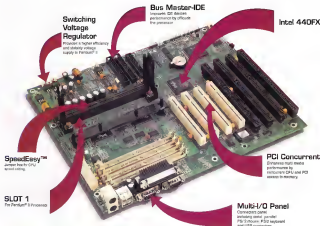
Refresh rates of 75Hz are offered at 1,280 by 1,024 and 1,024 by 768. Test patterns on this monitor proved to be of good quality overall, although there was a slight focus loss at 1,280 by 1,024 and above. The Brilliance 107 also incorporates a pair of speakers and microphone into itself for multimedia-ready applications. This particular model is also the only one in our survey this month which did not offer any on-screen controls. To make adjustments to the monitor, you must use the included Customer software.





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## Panasonic PM17

### Editor's Note

This monitor has a 16-inch viewable screen size which puts it near the top line in its class. It offers a dot pitch of 0.27-mm, and a capability of resolutions as high as 1,280 by 1,024 at a refresh rate of 60Hz. At 1024 by 768, however, it is capable of a solid 85Hz for sharp, flicker-free images. Built into the Panasonic PM17 are a pair of 3W stereo dome speakers, the same ones which are incorporated into Panasonic television sets. Also built into the monitor is a microphone, ideal for presentations or videoconferencing. The on-screen

displays are viewable in any one of five different languages. There are two preset color temperatures and one user customizable setting. Test patterns proved to be sharp with good color and contrast. The PM17 weighs in at 18.5 kg, and meets all MPR-II emission guidelines.



## Sceptre P75A

### Editor's Note

From a company well-known for making flat-panel LCD displays and desktop monitors, comes its latest 17-inch model. The P75A has everything your customers could ask for in a 17-inch monitor. To start off, there is the 15.6-inch viewable screen, with a fine dot pitch of 0.26-mm. Vertical refresh rates can go as high as 120Hz, with a maximum resolution being a maximum 1,600 by 1,200 at a solid 70Hz. The on-screen display will allow your customer a full range of configurable options with a choice of five pre-programmed test

patterns. The P75A managed to produce good quality images and sharp text and was able to maintain its focus very well up to 1,280 by 1,024. Resolutions beyond that should only be used for brief periods of time when required to view a larger image.



## TTX 7765S

### Reseller Authorization

Applications and authorizations are required.

### Support For Resellers

Custom programs tailored to specific reseller needs are available. Three-year warranty includes parts and labor (first and second year parts and labor, third year — parts and labor, but no CRT). Web site includes technical information.

### Volume Discounts

Yes.

### Same Day Availability

Yes, must be kept on display for 60 days.

### Editor's Note

The 7765S from TTX offers an excellent balance of features, performance and a competitive price. It features a viewable screen size

of 15.75 inches, with a dot pitch of 0.26-mm. Resolutions as high as 1,600 by 1,200 are supported at 60Hz, with support for up to 130Hz at lower resolutions. Test patterns proved to be sharp and focused even in the extreme resolutions. Even small fonts were clear and discernable. The OSD on this model is very easy to use, offers a full range of configurable options including three color temperature presets at 6500, 7500 and 9300 Kelvins, each of which are fully custom configurable. For great performance at a competitive price, give the 7765S from TTX a second look.



## ViewSonic G771/Optique W73

### Support For Resellers

Reseller referrals.

Toll-free train to resellers.

Three-year warranty includes parts and labor.

### Volume Discounts

Possible for volume corporate accounts.

### Same Day Availability

Yes, with some restrictions.

### Editor's Note

#### ViewSonic G771

The G771 was designed to replace and improve upon the 1315 model (which was a top-seller for ViewSonic). Aside from being very aesthetically pleasing, the G771 offers some excellent features comparable with monitors in a higher price range. With a full 16-inch viewable display and a dot pitch of 0.27-mm, sharp images are the norm for this monitor. Its maximum addressable resolution is 1,280 by 1,024 at 60Hz, but at 1,024 by 768 you get a solid flicker-free display at 83Hz without eye-strain worries. At lower resolutions, the monitor is capable of refresh rates as high as 180Hz. The on-screen display is clear and easy to use, with a multitude of configurable options. Test patterns were very clear and sharp, and focus was very

well maintained even at 1,280 by 1,024. The G771 is TCO- and M/TECO-certified, weighs 16.7 kg and is covered by a three-year warranty.

#### Optique W73

It offers a good balance of features and competitive pricing. For starters, it has a 15.8-inch viewable screen with a dot pitch of 0.25-mm. In its lower resolutions, the monitor can provide refresh rates as high as 160Hz, although in its maximum resolution of 1,280 by 1,024, it is limited to 60Hz. The on-screen display is simple to use and offers several configurable options at the touch of a button. At a resolution of 1,024 by 768, this monitor produced superb images with vivid colors. Focus and clarity were maintained even in its extreme resolution of 1,280 by 1,024.



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## Mitsubishi Diamond Pro 87TXM

### Reseller Authorization:

Yes, under Mitsubishi's Diamond/OSL program.

### Marketing Support For Resellers:

Co-op advertising  
Marketing funds  
Reseller referrals  
POP displays  
Three-year warranty (includes parts and labor)

**Volume Discounts:** On a case-by-case basis.

### Demo Unit Availability:

Yes.

### Editor's Notes:

The Diamond Pro 87TXM from Mitsubishi is the kind of monitor

you sit in front of and then don't want to leave. With a 16-inch viewable screen and a dot pitch of a super-fine 0.25-mm, every image this monitor produced was nothing short of excellent. Vertical refresh rates are available up to 130 Hz, with the highest resolution being 1,600 by 1,200 at 60Hz. We were surprised at how good the focus was at the extreme resolution. The OSD is easy to understand with a wide variety of configurable options. Although the two danger lines are barely visible, it's a small price to pay for this otherwise exceptional monitor.



## IBM G72

### Reseller Authorization:

Must be an IBM Business Partner.

### Support For Resellers:

Marketing support for resellers  
Co-op advertising  
Reseller referrals  
POP displays  
Education/training  
Three-year warranty (includes parts and labor)

**Volume Discounts:** Yes.

### Demo Unit Availability:

Yes, monthly rates apply.

### System Strengths:

The company says the IBM G72 monitor offers excellent performance, leading-edge technical features and best-of-breed warranty and support from IBM. It is targeted to business applications users who require the productivity of a larger screen to handle many (three or more) applications open simultaneously.

**Editor's Notes:**  
The G72 is available in two colors, either "pearl" or "smoke gray," as listed by IBM. The G72 features a 0.28-mm dot pitch on a 15.7-inch viewable screen. The maximum addressable resolution is 1,280 by 1,024, although only at 60Hz. In lower resolutions, the G72 is capable of refresh rates as high as 120Hz. The unit weighs 17.7 kg.



## Performance

### Size FX-G6

### Mitsubishi Diamond Pro 87TXM NEC P750

These awards are given for raw performance and overall features. This month, competition was very tight in this category, and as a result we are forced to hand out three awards to those that stand out from the competition.

The Eizo line of monitors are well known in the industry for offering incredibly sharp, vivid images without compromise, and the FX-G6 is a great example of this. Excellent image quality, super-high resolutions with great focus, and grade-A design are the hallmarks of this monitor.

Last year, Mitsubishi won a performance award for its Diamond Pro 17TX. Although that particular model is no longer in production, it has been replaced by yet another award-winning model, the 87TXM. With its DiamondTrim bezel, the 87TXM offers stunning images at any resolution and offers a wide range of refresh rates up to 130Hz.

No stranger to winning awards, NEC monitors offer excellent design and functionality with features not easily matched by its competition. Everything from a super-high resolution of 1,600 by 1,200 at 75Hz to a vertical refresh rate of up to 160Hz is found in this monitor.

## Price/Performance

### Sceptre P75A

Without a doubt, the P75A from Sceptre offers the most bang for the buck. It features a small dot pitch, a resolution of 1,600 by 1,200 at 70Hz and vertical refresh rates up to 120Hz all at an incredibly attractive price from a leader in the monitor industry.

## Overall

### KDS VS-9

The KDS VS-9 is a monitor that offers great performance while at the same time bearing an extremely competitive price. At just a \$895 estimated street price, this monitor is capable of displaying images of high quality and extreme resolutions found on other monitors with greater price tags.

## Honorable Mentions

There go out to the Panasonic PM17 and the Nikon 443Xero.

The Panasonic PM17 is a great choice for an all-in-one monitor that features built-in speakers and a microphone and won't break the bank.

The Nikon 443Xero goes one step further to provide speakers, a microphone and a color video camera all under one roof. It's not cheap, but it sure is unique. ☐

*Steve Holsken, Tim Bingham-Moore and Jay Whet are CNET's Lab Test Editors. You can be reached at (416) 513-4404.*



Aug 97

MONITOR AWARDS

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- Modem ready
- ATX power connector

586ITB

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- Supports ACPI and OS Directed Power Management
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# Point-Of-Sale Targets Huge Range Of Retailers

by Dan McLean

Point-of-sale (POS) systems are reaching down into literally every load of retail and to all types of retailers. That wasn't always the way things were, however. A few short years back, discussions of POS systems were usually equated with big, expensive Unix and mainframe-based hardware, and required large budgets to hire the integrators who would do the installation.

Systems integrators did the installation and they all had ground independent retailers, concentrating instead on the chain store giants. However, advances in PC technology have become the great equalizer for POS and now small retailers suddenly find they can actually afford to implement POS systems that can make their businesses run as efficiently as the big guys.

And DOS-based POS systems, which proliferated for more than 10 years, are being usurped by Windows technology, according to Peter Keane, of the Calgary Software Factory Ltd., in Calgary, makers of POS software for small business.

"Because of the evolution of Windows 95 and (PC) hardware, DOS is slowly getting the boot because it's very difficult to support and to find new hardware to run DOS," he said. "Windows-based machines are becoming progressively cheaper so it's pretty well going to be the standard, I'm sure."

Last December, for example, Fountain Valley, Calif.-based CAM Data ([www.camdata.com](http://www.camdata.com)) announced a new Windows 95

version of its CAM III software for retailers called CAM IIIw. The software now boasts a graphical user interface, with an Open Database Connectivity (ODBC) option to allow third-party software products such as Microsoft Excel or Access to read data from the CAM IIIw database for reporting and data manipulation purposes.

Even large chain store retailers who previously used Unix-based POS systems are making the move to Windows technology, based on cost and hardware performance. Keane added POS was previously an application for large customers who could afford it, but POS is moving to far down the retail business chain that once the cash registers we once knew are quickly becoming a thing of the past.

"Really, the computer is taking the place of the cash register, so will be, I believe," Keane said. "But that's not here yet. You go to Safeway or Co-op and they still use electronic cash registers, but more and more they're becoming almost a hybrid—their cash registers are really just another data entry point for their mainframe systems."

The fact that POS software runs from standard PC platforms rather than specialized and proprietary hardware makes them a lot easier to set up, said consultant Richard Monchorn, of Monchorn & Associates Inc. in Toronto.

He explained most popular POS applications for smaller retailers tend to be generic

POS

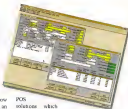
solutions, which are offshoots of general accounting packages. Customized features can be introduced through add-on applications, but the beauty of PC-based POS systems are that they are general, commoditized solutions.

Large multi-store chains, in particular, look for customized options that relate to their specific requirements. Monchorn cited the example of a clothing store that might want a POS inventory system that tracks stock by color, size and season. Retailers often use these POS solutions to develop support tools to determine when to place certain seasonal items, styles or sizes on sale. Such systems might also serve as a means of tracking and administering business management processes.

"One of the key things in retail is to minimize your stock outs — where someone wants to buy something, but you're out of stock — and to maximize [overstocking] your slow-moving stock," Monchorn said. "It's the management reporting aspect which can often make or break it for the retailer."

"There are not custom solutions, in the sense that they're created from the ground up. There are packages out there for clothing stores or other retail types. Again, for larger retailers, they generally take standard packages and add a few modifications to more closely dovetail with their requirements. Very little work is done on an entirely custom basis these days."

POS solutions run the gamut of retail. There are specific systems designed for businesses such as restaurants, hotels, cruise ships, theme parks, corporate outlets, offices for large chain grocery stores, specialty shops, clothing stores, and just about any type of retail you can name. At the other end of the



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specimens. POS systems for small business come as cheaply as US\$99.95 for a product called Advanced POS from James Enterprises of New York Inc. Advanced POS boasts just about everything a small business needs in the way of POS, including cash register, accounting, inventory control and customer management functions. And all that's required on the hardware side is a 386 or 486 system on DOS, Windows 3.1, NT or Windows 95.

The POS system software market can be characterized as broad, but vertical. According to Moschowski, POS system and application makers tend not to be the large software manufacturers, but rather a variety of niche players.

"There are many players in this business. I don't think it's the type of business where, say, a Microsoft could get involved and take over the entire market," he said.

The Calgary Software Factory (<http://www.csfactory.com/wns3/1/>) is a good example of how specialized the POS market is and how much opportunity there can be. "We're a company that sells almost exclusively over the Internet," Kearns said. "We have three employees and we try to keep the concentration as low as possible in order to keep our prices palatable and our overhead down."

The company's WinSell Business Operating System addresses a variety of aspects of business, including:

- POS,
- accounting,
- inventory control,
- customer and vendor tracking, and,
- management reporting.

"Almost everybody [in the POS software market] these days has one little niche or item that they want to sell. We have to realize we can't be all things to all people. Our system seems to be shaking out to be the single store operation, or one to three store operations, who want very little custom work done. Our package is designed — even with the custom work — to be a universal point-of-sale or a Unix-based system."

St. Albert, Alberta's Calsoft Software Inc. (<http://www.csoftsolutions.net/pub/csoftinfo/>

License.html) offers a range of capabilities in its Calsoft software, priced at \$189 for a multi-user version. Features include:

- cash management,
- inventory control,
- production and payment types,
- tracking of customers and salespersons,
- cash register features,
- flexible reporting,
- receipt printing,
- user-defined filters,
- tax calculations, and,
- network support.

An example of a broad-ranging system can be found from POS International Inc.'s Power 100 software, (<http://www.webcom.com/posintl/>) which sells for US\$595. It includes handling of:

- accounts receivable,
- customer tracking,
- inventory control with multi-store tracking,
- sales, with both counter sales and quick sales, and,
- employee timecards.

Markham, Ont.-based Transac (<http://www.transacomp.com/>) sells a variety of products under its "Intelligence" product line.

POS Xpress lets users capture data throughout the customer contact process to improve information gathering and to better target markets, says the company. POS Configurator lets users tailor their product to their own unique business needs. Store Manager provides in-store processing for centrally managed retail chains, offering POS services, independent data backup, cash management, sales reporting, data entry, and inventory control. And, according to the company, TRANSeet supports on-line or batch communication between any number of remote stores and head office, enabling credit and debit authorization, switching, file transfers, price updates, program downloads, E-mail, and database inquiries.

According to Moschowski, POS applications can typically be divided into three categories: general accounting systems used for POS, POS add-ons that hook into general accounting systems, and complete proprietary POS applications aimed at particular markets.

Retailers typically sell shrink-wrapped POS accounting packages plus many of the add-ons. The more customized POS solutions

are typically sold and serviced by the package developers, sometimes with the assistance of a VAR, Moschowski said.

"If you only have 200 or 300 users [of your POS system] in the entire world, there's probably not much room for a VAR who just covers Ontario, for example. You may only get a couple of installations a year which wouldn't be enough to support you, unless they are very, very big installations."

Ignacio More Inc. (Canada) in Toronto customizes a range of off-the-shelf POS software that are typically generic products, according to company spokesperson Lynn Schiffer.

"Distribution tends to carry products that are just off-the-shelf, high-volume products," she said. "We may sell to VARs who then take and customize [these POS systems]."

However, she confirmed that the POS market isn't a huge opportunity on the distribution side since the market is so specialized and niche-oriented.

Kearns agrees and added that many of the niche spaces are becoming increasingly crowded. "There are more and more competitors coming into this market," he said. "I see them on the Internet all the time." ■

## Some POS URLs:

### All Movers:

<http://www.webcom.com>

Advanced Point Of Sale:

<http://www.apos.com/>

Calsoft Software Inc.:

<http://www.csoftsolutions.net/pub/csoftinfo/>

Calsoft Software Inc.:

<http://www.calsoft.com/>

Can Data Systems:

<http://www.canadata.com/>

Cobb Data Systems:

<http://www.cobdata.com/pos1.html>

Del West:

<http://www.delwest.com/cv.html>

InfoGraphics:

<http://www.infogrames.com/>

POS International:

<http://www.webcom.com/posintl/>

SDM&S:

<http://www.sdms.com/>

Transac:

<http://www.transacomp.com/>

WinSoft:

<http://www.winsoft.com/wns3/>

Windows Software:

<http://www.windows-software.com/>



*Dan McLean is a Toronto-based journalist who specializes in high-technology reporting.*



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### DVD player sales are climbing

After six months on sale, and with the amount of software growing week-by-week, sales of DVD-Video players were still slow but growing, according to player makers. While no specific figures have been released by any manufacturers, estimates based on information from makers show that total unit sales in Japan are around the 150,000 mark. The latest data from Matsushita shows 214 announced titles.

### Hong Kong moves to restrict smart card use in transportation

Telecom firms, retailers and parking companies hoping to link up with the newly-to-be-launched smart card payment system for much of Hong Kong's public transportation may find their hopes blocked by the Hong Kong Monetary Authority.

According to the South China Morning Post, numerous companies have approached Creative Star, a joint venture by Hong Kong's five biggest transport companies, including the MTR Transit Railway Corp., Kowloon Motor Bus and Hong Kong Yauzei Ferry Co. The companies want their customers to be allowed the use of Creative Star's Octopus contactless smart card to pay for goods. But Creative Star General Manager Brian Chambers said the HKMA had indicated it did not encourage the use of contactless

smart cards to buy goods and services. The cards need only to be passed over a scanner to register payment, and smart card experts were concerned about the possibility of unintended transactions being recorded.

Hong Kong's big banks also may object to travellers laying goods and services with the cards, as the effectively allowed transport companies to act as banks.

In a recent discussion paper, the HKMA said that only financial banks should be allowed to issue cards that had no restriction on the goods and services they could buy. An HKMA spokesman said it had not formed a firm view on the use of contactless smart cards to buy goods.

"There is no black and white for this," he said.

### Japanese Internet business is worth US\$245 million

The value of transactions made over the Internet in Japan in 1996 jumped 40 times that of 1995, according to a survey carried out by the Ministry of Posts and Telecommunications (MPT). The statistics showed, said the MPT, that over half of all cyber-businesses were operated by a single person.

In fiscal 1996, the value of on-line commerce in Japan was US\$245.2 million, up almost 40 times over fiscal 1995.

The MPT said this gave Japan an eight per cent share of the world's on-line business market.

Around 40 per cent of the business posted profits or broke even, found the survey, and 60 per cent receive less than 10 orders per month, have less than US\$1,720 in monthly expenditure and less than US\$860 in monthly sales. The average monthly expenditure is US\$2,667. Findings showed that 90 per cent have a staff of five or less.

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### Alcatel to set up new multimedia centre

French telecommunications giant Alcatel Telecom is to set up its new regional multimedia centre in Malaysia in a bid to make Malaysia a media and entertainment hub for Asia, according to an *Agence France Press* report.

Alcatel general manager Gerard Degas said the new centre would be staffed with highly skilled engineers in multimedia and broadband and would be located with the new headquarters of Alcatel in Cyberjaya. He said the regional competence and support centre in Malaysia was far all multimedia services that were, or due to be, installed in Asia.

Prime minister Mahatir Mohamed began the "garden city" Cyberjaya would become a Southeast Asian hub for multimedia and digital entertainment in Malaysia by bringing together top citizens and technological talent.

In the meantime, Alcatel Telecom has signed a memorandum of understanding with Universiti Telekom, which has the task of setting up the Multimedia University in Cyberjaya. Degas said the partnership would include the sponsorship of scholarships and access to some of the most advanced research and training centers in Europe.

Alcatel Telecom, which has been a major contributor to Malaysia's telecommunications infrastructure, is a leading world telecommunications and space conglomerate. Alcatel Network Systems Malaysia, in the southern Penang state, is also helping Malaysia build high technology telecommunications systems through the manufacture of the Alcatel 5000 switch and establishing a software development centre. ☐

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# Focus! FOCUS!

by Sam Corbettson

Growing numbers of computer resellers are tapping into the World Wide Web. Many want to enhance their regular retail operations, some are aiming to provide a completely online method of purchasing. Still others are finding new revenue opportunities by helping customers find their own business presence on the Internet.

The Web's dynamic. There are countless ways to present a business, so focus is crucial here are two important considerations:

1. Does the Web site clearly convey what the business does?
2. Can the average visitor or shopper understand the site?

If you're going to invest time and money in providing a Web presence for your company, the pages should give some indication as to what service or merchandise your company provides. For example, consider the example site for Orbis (<http://www.orbis.ca>) with that in its parent company, Clearly Canadian (<http://www.clearly.ca>). While both sites have a good "look" to them, the Clearly Canadian site states explicitly what the company does on the welcome page, while there's hardly anything on the entire Orbis site to indicate that it too is in the drink business.

Obviously, the example is a little extreme, but it illustrates a problem that some Web sites have. If a Web presence is going to be a useful tool for a smaller business, it must get the pertinent information to the potential customer, and make clear what the business is about as quickly as possible. Name recognition isn't necessarily enough! A small write-up detailing what the business does, or a small product graphic, on the welcome page can be useful in quickly showing what the site is about.

Clarity is particularly important when you get into the question of what's being offered for sale. A lot of information is presented on the Web, but there's a distinct lack of useful specifics. For example, it's fine to list all the different models that you carry, but be very clear about what these models are. What are the differentiating features of the

various products listed?

Imagine, for a moment, that a customer has just walked in the front door of your store, looking for a new computer system. Without anything specific in mind yet, your customer is just peering out the various options, to see what is eye-catching. You see them walking around, looking at system packages, checking out the individual components, looking down the aisle at monitors, modems, and assorted other pieces. What's your job, as a professional computer salesperson?

The traditional wisdom would be like this: Approach the customer as you spot them looking at systems. Ask questions to find out what they are looking for in a computer, and demonstrate and explain the various options. Describe the advantages and drawbacks of various setups. Depending on the customer's needs. Detail what components and software each system came with, explain what the components do and their specifications, and outline various changes or upgrades that could be made on that particular package. Eventually, take them step-by-step through the process.

Your customers should come away from the experience with:

1. A better knowledge of what they wanted from their computer system.
2. An understanding of which systems would be best for them, and.
3. A sense of satisfaction, as you have taken care of their needs.

On certain Web sites, precisely the opposite is happening. While shopping for a computer system over the Internet is by no very nature a less personal experience than heading down to a local store, there are certain things that can be done to add to the experience.

You don't have to add a lot of detail, but if you're going to put items up on-line, you should at least point out the major differences between items. Note which components is the greater and which is the smaller. Provide hyperlinks to the manufacturers' Web sites, where available. If there's information you can provide for clarity, include it.

*What are your key Web messages?*

*How can you make it easier for potential*

*customers to understand your business*

*and buy your products?*

It is your prerogative to assume that someone visiting your Web site already knows what all your model numbers imply. However, that is equivalent to greeting an in-store customer at the door, handing them a bunch of paper slips with prices on them, and sending them back outside without letting them look at the actual merchandise.

A friend of mine was recently shopping for a more powerful computer. She went looking through resellers' Web sites to find something appropriate. She waded through a few sites, checking out systems. While most of the sites were fairly easy to navigate and understand, one of the sites she came across had this system description on it:

```
PCP10216X/1M/CD/MB/GB/MB,
VR/PC
NT/PC/ACC KIT
2GB 5400 RPM HD KIT (1)
2MB DIMM RISE, PC/PNT (1)
2MB DIMM (1)
PC, PRO/20/NT/386/1M/ (1)
PowerCenter Pro Accessory Box, U.S. (1)
```

It took me three hours and the assistance of three computer professionals to decode this little gem in its entirety. The frustrating part — this was about the most detailed information that was given on the site.

I'm not quite sure where cryptic practices like the above got started, whether it be lack of space in print ads, or computer industry shorthands. But if you are running your site as the average consumer, assume they know such basics as, computer, printer and hard drive. But expand "16X" to "16X CD-ROM". Explain that 33MB is RAM and that 2GB means a two gigabyte hard drive.

Getting customers to visit your site is important. But, please — offer facts and clarity, so they understand it too. ☐

Sam Corbettson does Web consulting for American Academic Computer Services (<http://www.americanac.com>) in Brandon, Man. He can be reached at [samcor@americanac.com](mailto:samcor@americanac.com)

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3 PCI & 1 PC



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# Internet Flash Reveals Intranet Gold

by Greg Rabinidge

The Internet opportunity for retailers may be big, but the intranet opportunity is huge. One analogy that has been used to describe the Internet/Intranet paradigm is the iceberg: if the tip of the iceberg is the Internet, then the mass of ice below is the market for intranets.

Market research firm International Data Corp. estimates that by the year 2000, Internet and intranet products and services will generate more than US\$932 billion in spending. And when broken down, the future demand for intranet technologies will far outweigh that of the Internet.

According to Zonta Research Inc. by 1999 spending on intranet technologies will be 300 per cent greater than Internet technology. Furthermore, the Gartner Group says that by 1998, 90 per cent of *Forbes* 1990 companies will have intranets.

The server market alone is expected to grow well into the billions by the year 2000 beyond the hardware requirements of servers, there is a growing demand for the tools to protect the intranet, server software and databases to run it and a host of peripheral software to augment the features of the intranet. And this is just the beginning. Much of the technology used to build intranets is also being used to build external intranets, often called called extranets.

One of the central reasons for the intranet-driven Internet and the quick adoption of corporate intranets is that for most mid- to large-sized companies, the infrastructure needed to implement an intranet already exists — an array of desktop computers linked together by some form of corporate network, usually TCP/IP or IPX. In today's LAN/WAN environment, employees have access to company databases, product information, services, financial and other information. Integrating this information into one "one-stop" access point — or better yet, the next step.

The growth of intranets stems from a movement in the market-place toward a standard network technology platform and from the IBM Knowledge power created for an organization. The growth and preeminence of TCP/IP (codified as a standard by the Internet Technology Task Force) and the fact that 99 per

cent of American corporations are still using legacy systems created a need/opportunity to integrate these systems.

Return on investment for intranet implementation has recently been estimated by IDC to be as high as 1,000 per cent. In addition, companies estimated in the IDC study recovered the cost of their intranet within six to 12 weeks. Therefore, given the momentum in the marketplace and a fiercely competitive environment, the most significant cost for businesses today is not implementing an intranet.

The widespread migration of legacy information and communications to a centralized system throughout the corporate world means that the demand for intranet technologies will continue to grow as more and more companies realize the potential and the necessity for such an internal communications system. Most medium and large businesses have some need for internal communications — and a corporate intranet is becoming the most cost-effective and simple way to fill this need.

Through the simple point-and-click interface of a browser, employees are able to access information, run applications, collaborate on projects, communicate, search corporate data-

bases and manage all of their corporate information and Internet E-mail functionality. With the advent of the NCSA Mosaic browser and the Netscape Navigator browser, Web technology was born. Within two years, the market for the internal Web servers which form the core of corporate intranets jumped from zero to US\$676 million. According to Zonta Research, two-thirds of all large companies are either developing an intranet or are in the planning process.

## Which Companies Need To Implement An Intranet?

The following survey will help identify intranet opportunities:

- Does the client have more than one office?
- Is the client's business dependent upon technology?
- Is there a need to communicate within or across different company divisions or departments?
- Is the client's business knowledge-based intensive?
- Is the client currently operating on a number of different platforms or utilizing a variety of desktop technologies?
- Are the client's phone, fax, mail and courier charges significant in relation to other business expenses?
- Are there more than 30 desktops within the organization?
- Is there a need to communicate to a broad stakeholder group?
- Is the client currently communicating electronically — either internally or externally?

If the client answered "yes" to three or

**"The future demand for intranet technologies will far outweigh that of the Internet."**

more of the above questions then the company will gain a significant competitive edge by implementing an intranet.

Be it a company's Web site, intranet or extranet, the medium of Internet technology is changing the way companies do business and will continue to impact the way people communicate and share information. What this paradigm shift means for retailers is an unparalleled opportunity for growth involving intranet/intranet technologies over the next five to 10 years. ■

Intranet technologies arose in the early 90s as a way to take the increasingly popular Internet medium, like E-mail, the Web and newsgroups and bring them into the corporation. The first intranet resembled little more

than a merger of groupware products and Internet E-mail functionality. With the advent of the NCSA Mosaic browser and the Netscape Navigator browser, Web technology was born.

Within two years, the market for the internal Web servers which form the core of corporate intranets jumped from zero to US\$676 million. According to Zonta Research, two-thirds of all large companies are either developing an intranet or are in the planning process.

Greg Rabinidge is a business process analyst and consultant with Toronto-based Hype! Inc., an intranet and Internet development company (<http://www.hype.com>). He can be reached at [greg@hype.com](mailto:greg@hype.com).

# Trio Of NT Books Provide Ranging Coverage

by Stephen Barak

**Title:** *Windows NT 4 and Web Site Resource Library*  
**Publisher:** SAM'S Publishing  
**ISBN:** 0-133-30993-5 0-133-30993-6 0-133-30993-7  
 0-133-30993-8 0-133-30993-9 0-133-30994-0  
 (All the titles are contained in one package with varying ISBNs)  
**Content:** 3 resources, three CD-ROMs  
**Level:** Beginner to advanced  
**Description:** The book and CD bundle contains every aspect of NT 4 Server using that you and your customers will ever need to know in one convenient authoritative package.  
**Rating:** A+ — Highly recommended.

Microsoft Windows NT sales are booming and there is a substantial shortage of NT experts. The cost of NT education can be prohibitive for you and your customers, but the current market trends represent a unique opportunity for VARs and consultants. There are many books available — so which ones are the best?

For a well-written beginner's guide to Windows NT, check out *New Reader's "Managing Windows NT Server 4,"* by Howard F. Hilbiker (ISBN 1-56205-576-3). The task-oriented guide covers set-up, basic administration, user relationships and security. This book includes sections on,

- networking fundamentals,
- selecting and configuring hardware,
- network architecture,
- installing the NT OS, adding and deleting shared resources and printer resources,
- setting up and modifying user accounts,
- RAS and RAID solutions,
- working with the registry,
- NetWare and Macintosh connectivity and NetWare migration, and,
- domain trust models.

*Managing Windows NT Server 4* includes a CD-ROM-based Windows NT user relationship for performing common administrative tasks, a NetWare to NT translation table and a complete command reference.

Hilbiker's approach is gentle, carefully building key networking concepts before moving to more advanced material. The only caveat is that you often want more detail, which the book does not provide.

For greater depth and more substantive coverage, network consultants will want to use *"Using Windows NT Server 4,"* by Roger

Jennings (ISBN 0-1997-0251-7). This book goes straight towards experienced networking professionals and provides introduction to advanced coverage of planning, budgeting, installing, and managing single- and multi-domain Windows NT networks. Together with the useful information on network installation, and administration, this advanced guide includes sections on:

- integrating NT with NetWare and Unix networks,
- connecting Win65, NT, Win3.1x, and Macintosh clients,
- setup and management of Internet Information Server, FrontPage, Internet Database Connector,
- installing and administering BackOffice 95, Server, Exchange Server and SMS server,
- RAID and tape backup strategies, and,
- HighEnd-T server clustering, design, optimization and troubleshooting techniques.

Be forewarned — this book targets a more advanced audience and assumes a good amount of computer expertise. It takes over where Hilbiker's book leaves off, especially when you are researching a particularly tricky problem.

**Title:** *Using Windows NT Server 4*  
**Author:** Roger Jennings  
**Publisher:** Que  
**ISBN:** 0-1307-0251-7  
**Content:** 195 pages  
**Level:** Intermediate to advanced  
**Description:** The book contains good coverage of setting up and working with Windows NT including fine-tuning and optimization.  
**Rating:** A+ — Recommended for networking consultants.

For the ultimate in resource/reference material, SAM'S "Windows NT 4 and Web Site Resource Library," is unmatched in content. I strongly recommend this collection for all NT specialists. With six volumes and three CDs the package fills into the "Everything you ever wanted to know but were afraid to ask?" category.

Specific volumes include: "Windows NT Installation, Configuration and Customization," "Windows NT Internet and Intranet Administration," "Windows NT Internet and Intranet Development," "Windows NT Net-

**Title:** *Managing Windows NT Server 4*  
**Author:** Howard F. Hilbiker  
**Publisher:** New Riders  
**ISBN:** 1-56205-576-3  
**Content:** 1,885 pages, one CD-ROM  
**Level:** Beginner to intermediate  
**Description:** The book contains the essentials of NT administration and setup.  
**Rating:** B+ — Recommended for the beginner.

working," "Windows NT and BackOffice Integration," and "The Windows NT Registry."

The three CDs contain more than 3GB of reference material, HTML hot-linked books (on TCNIE, ActiveX, and Web Development), material on Java Security, software utilities including TUCOWS's "The Ultimate Collection of Winsock Software," and translations of contents.

In summary, if you are new to Windows NT networking, *Managing Windows NT Server 4* by Howard F. Hilbiker is recommended. This book introduces the networking field and NT servers in particular.

For the experienced networking consultant *Using Windows NT Server 4* by Roger Jennings is a good choice. This book is superior to Hilbiker's but would be difficult to follow without an extensive networking background. If you want a one stop source for all NT information then *Windows NT 4 and Web Site Resource Library* by SAM'S Publishing is necessary for all-networking installers, administrators, and experts. The question here becomes one of cost, although the amount of supplied material is well worth it. The CDs alone could easily justify the investment.

One final thought: computer books usually lag the marketplace and so you should not expect the latest releases or patches to be covered. To provide some measure of protection, all the books reviewed above contain Web links that you and your customers can use to download the latest news, patches and updates. ☐

Stephen Barak, BP, is co-coordinator of the BAISM Computing Program at Capilano College, which is CIPS Accredited, Microsoft-certified. He can be reached at sbarak@capilano.bc.ca.

# Marketing On A Shoestring

By Cathy Cowan

**"For many resellers, huge campaigns are not in your best interest when you are only servicing a specified region or certain 'niche' market."**



Contrary to your accountant's opinion, marketing is a necessity — not a luxury item. To truly maximize your business's potential you need the widespread visibility that marketing generates. The reason behind marketing is simple — people can't buy from you if they don't know you exist.

"Visibility" does not automatically equate with big bucks and international marketing campaigns. In fact, for many resellers, huge campaigns are not in your best interest when you are only servicing a specified region or certain 'niche' market.

The key to effectively increasing your visibility is determining your target market. Who will buy your products and services? Where are you going to make the most money with the least amount of effort? Which industry applications are best answered by your product offerings? What are the advantages and limitations of your staff? If you know you only have the ability to properly service clients within a 75-square-kilometer area, and your particular products and services best lend themselves to graphics firms, then you should be focusing your marketing efforts on these individuals. Once you've created some visibility for your company with these companies then you can expand your target market — for example, to include companies within 75 to 100 km, or perhaps the financial industry.

After establishing your target audience, the next logical question is: "How do I make these people aware of my company?" There are numerous ways to promote your company without spending millions of dollars, including your home 'word-of-mouth' and 'networking' approaches.

However there are also some cost-efficient marketing activities that you can personally initiate to generate widespread visibility in your target markets.

## Speaking Opportunities

Speeches are a great opportunity for you to gain some visibility in your community and meet some new prospects at the same time. Many local organizations including the chamber of commerce, user groups and trade shows are on the look out for people to shed light on new technologies and solutions. Offer to speak after your speech — such as an informative brochure or article, with your business card stapled to it so prospective clients know how to get in touch with you.

## Sponsorships

A multitude of organizations and events are always looking for money in return for "free advertising." Again, which events or organizations you sponsor will depend on which markets you are targeting. Sponsoring your local one might be a natural tie-in if you're targeting the graphics/artists market but you might be better off to sponsor a school event if you're targeting the home market.

Donating equipment to a worthy cause can also gain you some great exposure — be sure to tell your local community paper so they can write an article about your generous donation as well!

## Advertising

Advertising does not necessarily require you to mortgage your house. Advertise in technology or business publications if they can help you reach your target regional or industry target markets. If you're aiming for the graphics market, think about advertising in a graphics publication. Or if your geographic region is small, try advertising in your community paper. Classified ads can also be an inexpensive, yet effective, place to advertise if you're targeting SOHO buyers.

## Training Seminars

A great way to generate interest for your company is to hold an event, invite a few of your targeted prospects to a training or information seminar held at your offices



Providing a value-added night at the beginning of your relationship can demonstrate how dedicated you are to customer service — a dominating factor for many buyers. Or, if you have the capacity for many attendees, consider advertising the seminar with flyers or ads targeted to your established target market. Don't forget to invite your local media to encourage some newspaper coverage of your event as well.

## Sales Letter

A cost-efficient alternative to direct mail, a sales letter is quite simply a well-written letter designed to introduce your company, products and services and to promote yourself to your target market. After you've written it, and had it edited by one of your colleagues to ensure it reads well, send it to your entire list of targets.

If product brochures are available, include them with the mailing as additional information. You should plan to distribute sales letters to your list on a regular basis — but make each letter different to present prospects with some new information with each correspondence.

Ask your partners to contribute to the minimal costs associated with some of these marketing suggestions — many large vendors offer their partners funding to help you sell more of their products.

Marketing, if done smartly and efficiently, does not have to cause your accountant any grief — except for the work of calculating the revenue growth and deciding what to do with the profits! ☐

*The author is a senior consultant with the advanced technology division of Standard/Canada/Continental Communications, a full service public relations firm with offices across Canada. She can be contacted at cecilia@standard.com*



# Clone CPUs Challenge Intel

by Alan Zisman



Once upon a time, choosing a CPU for a PC was simple, relatively speaking.

Intel's product line included the lowest, fastest, and most expensive processors, along with a range of other offerings — lower priced, lower performing, but guaranteed compatible. Other companies, most notably AMD and Cyrix — but also IBM, Texas Instruments, NEC and others — offered low-price, low-end equivalents that were often wretched-up clones of Intel's previous generation, providing good performance for the price. These were rarely found on name-brand units, or in big business's machines, partly out of fears of potential incompatibilities.

This pattern has held true through several generations of PC processors. When 286s were hot, NEC offered the high end of the low end, powering turbo-XTs that were faster than any powered by Intel's previous generation. As Intel pushed to 386s now, AMD and others sold 486MHz, 200MHz, and 250MHz 286s that rivaled the performance of a low-end Intel 386. Later, AMD similarly offered 486MHz 286s that could keep pace with Intel's more expensive 486/25s, and more recently, clone 486/100s that kept pace with the previous season's Pentium75s.

## The New Scenario

Things are about to change now.

Buyers are faced with a wider range of choices than ever before from Intel, and with some very competitive alternatives from Intel's competitors. From Intel, one can choose between:

- the classic Pentium series, mixed out at clock speeds of 233MHz, with major price reductions expected;
- MMX-enhanced Pentiums, at speeds of 166MHz to 233MHz;
- Pentium Pro, also at speeds of 166MHz, and,

- the new Pentium II CPUs, (previously code-named Klamath) with MMX enhancements and speeds starting at 233MHz, with some models pushing 300MHz.

From the clones, we're seeing releases of high-end models like:

- AMD's K5 offering the power of a Pentium Pro with MMX enhancements, but without that processor's limitations running Windows 95;
- Cyrix's brand-new 486MMX, formerly known as M2, along with its MeddlinX processor aimed at low-cost models, including Compaq's Presario 200. Current MeddlinX models run at 120 and 133MHz, but Cyrix is planning to ramp the speed all the way to 200MHz by year's end. Cyrix claims its 486MMX processor rival Pentium II power at about half the price;
- Upcoming releases from new-to-the-CPU battle — Integrated Device Technologies (IDT), aimed at the low end market, and,
- The hottest competition is between the new generation of CPUs — Intel's Pentium II vs. the K6 and M2.

## Pentium II Quandaries

At the heart of the competition is a key question of design. With the Pentium II, Intel has broken with the design used in its previous CPU models. This CPU is no longer socketed into the motherboard instead, along with its cache chips, a resident-on-a-special-card, fitted into a companion slot. This entails some major motherboard redesign, and commits manufacturers to Intel-only standards.

While offering performance on a par with Intel's high end, the clone CPUs are both designed to be compatible with existing motherboard designs using the Pentium's Socket 7 — a benefit for similar motherboard manufacturers.

The clones believe that Intel is trying to push the industry towards expensive and unnecessary new proprietary standards, while the Socket 7 still has a lot of life to it. Intel

counters that its designs are the wave of the future. But there's a catch — current shipping Pentium II machines are being forced to use an older supporting chipset (the 440MX), which is a drag on the CPU's potential. The 440MX doesn't even support some features available for the less-powerful MMX Pentiums, such as SDRAM memory and the ATA-33 bus for faster disk access. As a result, only users of 300MHz Pentium II systems have found much lower overall system performance than they'd expected. The new 440LX chipset supporting higher bus speeds and Accelerated Graphics Port, among other features, won't be widely available until the end of 1993. With the new chipset, Intel hopes to push bus speeds to 166MHz and CPU speeds to 400MHz by 1994.

Don't be surprised at seeing TV ads pushing "Intel Inside" brand-awareness. For the short-term, expect to see:

- Cyrix selling to the low-end, such as less-well-known brands aimed at the U.S. mid-order market, and to some notebook manufacturers, attracted by the lower-power demands of its CPUs;
  - AMD making some inroads into the mid-priced market, with a few name-brand manufacturers including these CPUs in their product lines, and some penetration into the big corporate market, and,
  - Intel keeping a strong hold over the bulk of the market.
- In the next issue, we'll look at these CPU lines in more depth. ☐

*Alan Zisman is a computer journalist and teacher living in Vancouver. He can be reached at a\_zisman@cybertrav.ca*



# For Some, The Channel Is Not Working — But Why?

by *Gisela Bennett*



One of the overwhelming themes observable at Comdex/Canada '93, aside from an apparently endless array of digital cameras and the emergence of DVD as The Next Big Thing, was the inescapable sensation that, for many, the channel has failed.

## Five points to consider:

1. Quality dealers often can't compete on price with megaretailers. Customers can buy products cheaper elsewhere.
2. Customers don't trust many computer salespeople, and often for good reason.
3. Channel-oriented institutions (and that's what Comdex is) are, for a growing number, not a worthwhile investment.
4. Disruption plays an becoming more prominent in growing numbers of dealers resort to unbundling software from hardware and value-added bundles designated "not for sale without hardware purchase." Increasingly, smaller dealers import academic editions of leading titles like office suites, graphics apps and utility packages. Orders

revert to the grey market, rebuying, exchanging warranty cards and other dubious activities that often end up damaging customer relations in warranty and service issues battles.

5. While many vendors are still trying to make Web sites pay, a few have finally spun the right mix of form and function to see their Web-based sales efforts pay off.

At Comdex, disruption events such as no-shows of distribution giants Ingram and Intermet, and the abandonment of IBM, Compaq and Apple, added snap to the presence of exhibitors such as Dell and Power Computing. Dell, of course, has done nearly all the right things. The company reportedly sells \$100,000-worth of product per day via its Canadian Web site (not to mention on the often quoted US\$8 million per day the U.S. parent is said to take in on its site). Apple, aside from a string of quality-control problems that have dogged Power Computing, that company is apparently employing much the same strategy. That Web-contrasted-order approach has allowed both to gain unique and high profile positions in their respective companies.

Consumers and corporate buyers didn't go to mail-order solutions first. Statistically, the average networked-computer purchase is on his or her second to third upgrade cycle and, in many cases, they've seen both the retail dealers and the megaretailers let them down. In addition to pricing issues, systemic problems such as rebuffed demo models, missing cables, and other aspects of poor quality control are what drove many buyers from the small dealerships into the megaretailers in the first place. There, they found salespeople not only woefully undertrained on the dizzying array of technical information required to effectively serve a sophisticated computer systems purchaser, but the dealers with the clout — the lockbacks, splits, commissions, limited-market product bundles and other behind-the-scenes product plays of the dealers served to destroy a further degree of trust. In desperation, pulled users turn to the production-line process and pre-configured predictability of the Dell and Power Computings of the world.

One of the best booths in the show was one assembled by Toronto-based digital video specialists Vtech. The booth was festooned with literally thousands of products presented in a hands-on environment that allowed customers to compare, for example, the relative merits of digital cameras from several manufacturers in a side-by-side comparison. This is the way consumers shop; it makes the most sense as a sales strategy. Vtech offered product brochures and catalogs that were both attractive and extremely informative, and provided what seemed to be a glimpse of the true soul of the company. The technical experts were there, demonstrating (and selling) complete solutions in a highly focused and general by high-margin product category.

While it may be true that multimedia is what the computer world promotes when there's nothing else happening, it is emerging commercial interest right now. Those who can put the right pieces together stand to reap the rewards. *BB*

*Gisela Bennett is Managing Editor at The Computer Paper and as a former computer reseller based in Vancouver, he can be reached at gisela@compa.ca*



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# Use Internal Financing To Your Advantage

by Douglas Gray



As a result, you are constantly dealing with cash flow challenges. It is the nature of the business. Sometimes you need extra funding for seasonal inventory, special promotion demands

or for other reasons. Many business owners, who are unable to access money or sufficient money, in terms of debt or equity capital may be forced to reexamine their needs, resources, and business management. For example, quick handling of accounts receivable, effective inventory control, customer pre-payments, and cutting down on unnecessary expenses can free up funds with otherwise available. It forces your business to operate in a more efficient fashion. This will lessen your need to look outside the business for financing.

You may already be effectively using the following techniques. If so, a review will reaffirm your positive managerial style. If you are not applying some or all of these methods of internal financing, they are worth considering. Here is a brief overview of some of the options:

## Customer Prepayments

A business can encourage customers to make a deposit, prepayment or payment on delivery. This is a very common technique in the mail-order business of course, or where special or customized orders are requested.

## Inventory Control

Effective inventory control will ensure there is the right amount of stock to satisfy customer demand. Determine guidelines for proper inventory purchases. Adjust your purchases to meet the peaks and valleys of your annual business sales. Too much money tied up in slow-moving inventory debt-servicing payments on inventory loans and lost customer loyalty due to insufficient stock are costly to your business.

## Collecting Receivables

Receivables can be reduced by a tighter credit granting policies, better monitoring of

accounts, and more effective collection policies. You may wish to consider credit cards or cash only as a means of sales.

## Delayed Payables

Establishing a good working relationship with your suppliers can result in extended payment terms. Make certain they are aware of your loyalty to that firm and your repeat business. You may be able to negotiate a discount or further discount on volume or regular purchases.

## Restructuring Payment Arrangements

There are times when a small business is not able to maintain monthly payments plus interest on loans or repayment to creditors. By using creative negotiating techniques there are ways of getting around short-term problems.

Some alternative repayment plans that you may consider include:

- A period of grace for principal loan payments during the start-up period of your business operation,
- Stretched payments that feature a long amortization period resulting in low payments of principal in the early years,
- Graduated payments — that is, low payments on principal in the early years and higher ones later on, and,
- Payments of principal during the high season only, so that the business does not have a cash tight period during the low sales volume season.

## Selective Product Lines

Try to limit your product lines to the ones that suppliers give you the most favourable terms on and which have the highest sales turnover and profit margin.

## Fixed Assets

You may wish to sell your assets to a leasing company and lease them back, thereby freeing up cash for working capital purposes. On reviewing your assets, you may feel that some of them are not necessary to the business and may be sold to free up additional cash.

## Renting or Sub-letting

You may decide to rent space for your retail location, rather than buying. Naturally, this will enhance your leverage and your cash flow. Possibly you could sublease some of your existing space to a non-competitor but complementary retailer. By subleasing space you can offset your monthly payments, thereby increasing your working capital. There could also be cross-marketing benefits with increased sales to you.

## Stringent Management

By reviewing the points discussed above to determine how to conserve on capital and save on expenses, financial resources can be freed up and the business risk minimized. You should analyze the financial condition of the business on an ongoing basis. For example:

- Are salaries too high?
- Are you taking out too much from the company for personal earnings rather than keeping it in the company for working capital?
- How do the company's costs of goods and other services compare to other companies in the industry?
- Is the lease too expensive?
- Are supplies being wasted?
- How do actual expenses compare to budgeted expenses?

You know best where expenses can be trimmed from the operation. In addition to controlling expenses, you should always be looking for ways to increase profits, and improve inventory or assets, and maintain an effective receivables collection program. ■

*Douglas Gray, LL.B. is a Vancouver-based lawyer. By training, speaker, researcher and author of 13 best-selling business books, plus a real estate investment software program. His books include The Complete Canadian Small Business Guide and Home Inc.: The Canadian Home Based Business Guide (both by McGraw-Hill Ryerson), Start and Run a Profitable Consulting Business and Marketing Your Product (both by Self-Concept Press).*



### CD-ROM is for notebook PCs

Most notebooks currently in operation lack an internal CD-ROM drive, a situation that is increasingly problematic to users, as newer and newer software titles are available on floppy disks. Rather than buy a new, fully multimode-capable notebook, many consumers are looking to upgrade their systems with an external CD-ROM drive.

DeKaf, Ill.-based Micro Solutions Inc. has released the new Backpack Buntam, an incredibly compact, sleekly designed CD-



ROM drive that connects to a computer via the printer port. The Backpack Buntam is designed as a plug-and-play peripheral, simply connect it to the parallel port of any window PC, and then plug a printer into the back of the Backpack Buntam. The drive is rated at up to 1,200KB/sec. on an enhanced Parallel Port (EPP speed), or slower on unidirectional or bi-directional ports (between 100 and 330 KB/sec.). The drive weighs 23 ounces, and has dimensions of 10x6x4 inches. The base model of Backpack Buntam has a

Canadian retail price of \$369. A version with built-in stereo sound capability costs \$449. In addition to the new Backpack Buntam, MicroSolutions also manufactures other parallel port mass storage devices, including an iSB tape drive, a 68000 PCAD drive, and inter-

nal floppy and hard drives. For more information, contact <http://www.microsolutions.com> or call 1-800-693-7227.

### Protec WebShare allows multiple PCs to share Access

Quebec's Protec Microsystems Inc. has released the latest version of its WebShare product, which allows up to three PCs to share one modem, phone line, Internet account and IP address.

According to Steven Nove, marketing manager for Protec, "Small organizations have embraced the WebShare concept because it hosts the high cost of multiple Internet accounts, and now with this new release supporting higher speed modems, users can be even more productive. But, while the new WebShare is faster than the previous version, getting started is still simple. Just connect WebShare to your phone line using the model with integrated modem, connect up to three PCs to the WebShare using serial cables provided and instantly give Internet access to three users."

The basic version of WebShare, designed to be used with an external modem, has a suggested retail price of \$349, and is aimed at the SOHO market. For more information, contact <http://www.protec.ca>, or call 1-800-763-1134.



Protec WebShare

### Nintendo 64 competing with powerful PCs

The Nintendo 64 video game console, an interactive 3D gaming system based on Silicon Graphics MIPS RISC chips, has become the best-selling video game system in Canadian history, with more than 300,000 units sold here in only eight months.

As a time when PC games technology is also developing advanced 3D capability, the Nintendo 64, which retails for less than \$200, offers the user-friendly, fastest 3D rendering in the consumer market. Developing games for the Nintendo 64 is a difficult and expensive task, as it requires high-end Silicon Graphics developers' workstations and super-level 3D animators and programmers. As well, the N64 uses ROM cartridge technology, instead of the more common CD-ROM disks common to most current multimedia systems. This means that for many developers, developing on the N64 is more of a financial risk than they care to assume. The upside, though, is that developers who commit to the N64 platform tend to be the best and most technically capable in the game software industry, and most of the existing N64 games are held to be first rate. The converse is true on the PC: the vast majority of CD-ROM titles range from mediocre to bad in quality.

Many households with PCs have resorted to buying N64s as a "second entertainment system," since it can free up the "real" computer for home office and school work, for about a tenth of the cost of a complete PC system. Nintendo representatives claim that about 40 N64 cartridge titles will be available in Canada at time for the holiday season this year. CCFW had an opportunity to test the latest N64 title launched this summer, Star Fox 64, and found it to have excellent game play, along with beautifully rendered 3D environments. Upcoming titles include Tetrisphere, a 3D version of the popular Russian Tetris game, developed by Canadian developer RSD, and GoldenEye, the Rare Ltd. adaptation of the James Bond movie.

For more information, contact (504) 279-1600. ■



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### Microsoft Canada GM promoted

Jeff Dowell, general manager of Microsoft Canada Inc. since August 1996, has been promoted to Microsoft Corp., in Redmond, Wash. (The specific promotion had not yet been announced at press time.)

Microsoft says the Canadian subsidiary grew 35 per cent under Dowell's direction. Dowell is chairman of the board of directors of Cello in Red Canada, a charity for product philanthropy. He is a member of the Advisory Board of the Queen's University MBA for Science and Technology program, and was president of the Canadian Alliance Against Software Theft (CAAST).

Microsoft said a separate announcement will be made about the appointment of a new general manager. In the meantime, Microsoft Canada's Strategic Management Team will manage Canadian operations, reporting directly to Frank Clegg, Microsoft Corp. vice-president, central region.

### Matsushita names CEO

(NB) — Matsushita Electric Corp. of America has announced that Yoshiyuki Kabe, 58, has been named its chairman and CEO.

Kabe is a member of the board of MELA's parent company, Matsushita Electric Industrial Co. Ltd., and is responsible for Matsushita's overall operations in North America.

The company says Kabe joined Matsushita Electric in 1962 after graduating from Japan's Sophia University with a degree in law. He has held executive positions in Malaysia, Japan and the United States.

### Tandem appoints VP

(NB) — Tandem Computers Inc. has appointed former exec with Novell/Inetco, Doug Wheeler, to the position of vice-president, corporate marketing.

He will report directly to CEO Rod Papen. Wheeler will be responsible for marketing and strengthening Tandem's corporate image in the market-place.

Before Novell/Inetco Networks, he was at Unix System Laboratories and Software AG.

In his position as vice-president of marketing at UB Networks, he oversaw all corporate

marketing, including marketing programs, competitive analysis, marketing services, advertising, public relations, and analyst relations.

### CAIP elects executive

The Canadian Association of Internet Providers (CAIP) — a non-profit affiliate of 50 companies in Canada's Internet industry, has elected a new executive board. Margo Langford, from Blue Internet Inc., was elected chair of CAIP. Other members of the board include vice-chair Rob Hall (Echelon Internet Corp.), secretary Bill Neal (IBC Tel), and treasurer Scott Knapman (Bell Canada).

Last November, CAIP announced the development of a voluntary code of conduct for the organization's members. The organization plans to work on issues with government, and to represent the Canadian Internet industry to international Internet standards bodies.

### Merisel Canada names VP

Merisel Canada Inc. has named Jamie McChesland as vice-president of marketing for the company.

Coming from the packaged goods industry, McChesland will bring a different perspective to the position and will apply some of that packaging knowledge to Merisel's operations, said Merisel Canada president Tom Reeves.

### Adobe loses vice-president

(NB) — Adobe Branson, vice-president and general manager, North America sales and support for Adobe Systems Inc. has resigned, after 18 years with the company.

He will become CEO and president of Academic Systems Corp.

Adobe says Harold R. Politan, vice-president of customer support, will take over his responsibilities on an acting basis, until the company finds someone to replace Branson.

According to the company, Branson "grew the North American application sales operation significantly and oversaw the smooth transition in Seattle from Aldus Corp. to Adobe when Adobe acquired Aldus in 1994."

### Microsoft gets new CFO

(NB) — Microsoft Corp. has named Gregory B. Maffei CFO. He replaces Michael W. Brown, who will reportedly move to the end of the calendar year.

Maffei has reportedly served as vice-president for corporate development since 1996 and as treasurer since 1994. As CFO, he will be responsible for the company's worldwide finance organization.

Brown joined Microsoft in 1989 as treasurer, and was promoted to vice-president for finance and CFO in 1993.

## CALENDAR

Aug. 17-20

AFL/IT

The Toronto AFL  
Special Interest Group  
Toronto  
Call (416) 591-4037  
<http://www.torontocap.org/eng/eng.htm>

Aug. 23

Computer File Market

North of Bradford, Ont.  
Call (905) 775-2672  
<http://www.torontocap.org/>

Sept. 9-10

Softworld '97

Vancouver  
Cost: \$995  
E-mail [info@softworld.org](mailto:info@softworld.org)  
<http://www.softworld.org/>

Oct. 7-8

Comdex/SBC '97

Montreal  
<http://www.comdex.com>

Oct. 27-30

Decorations Canada

Toronto  
Cost: \$375 (workshops extra)  
E-mail: [ploussard@interdoc.ca](mailto:ploussard@interdoc.ca)  
<http://interdoc.ca/>

Nov. 12-13

Home-Based & Small Business

Information Expo  
Toronto  
<http://www.skyline.net/html2.html>

Nov. 17-18

The CIO Summit

Toronto  
(416) 593-5938

Nov. 17-21

Comdex/Fall '97

Las Vegas  
<http://www.comdex.com>



Do you have an upcoming event you'd like to see listed in CIO's Calendar? E-mail: [csaffley.ca](mailto:csaffley.ca)

# Time To Go

by Douglas Alder

*"I hit 40 years old this year, and for me it is a time for introspection and thoughts on how I plan to spend the rest of my time on the planet."*



The party's been great, but it is time for me to go.

I will be ending my term as president, publisher and editor at Canada Computer Paper Inc. as of Sept. 30. We have a new publisher, David Rittor, who will be operating from Toronto (the balance is national, the universe is whole again).

I have been working with David to transfer some of my knowledge and ideas for future growth. His career to the job as a seasoned publishing executive with more than 17 years of marketing, sales and general management experience with Macdonald Hunter Publishing and Boreas Publications. He has had the greatest training and although some days his head is spinning with all the new things to learn he is absorbing quickly what is needed to keep the company going and growing. His mandate is to continue the successful growth we have experienced and to "explore the revolution." (You can contact David Rittor at publisher@tppnet.com.)

## My Reason For Leaving

In 1995, Canada Computer Paper Inc., the company I started almost 10 years ago, was purchased by Montreal-based Hefko Mag Inc., the world's largest publisher of classified ad format publications, with publications in Canada, the United States, France, Holland, Sweden, Italy, Switzerland, Poland,

Russia, Taiwan, Thailand and Puerto Rico.

As some of you know, when I originally sold the company two years ago to Hefko Mag Inc., I was given a two-year management contract. That contract is now up, and I feel it is time to move on.

When I said, I did so with a view to spending more time with my family. I plan to travel with my wife and our two children. Our kids are home-schooled and so this will be one big geography lesson for them. We would like to see some of the world before they get too old and launch off on their own. We plan to travel for at least two years, before considering any new projects.

I have enjoyed my time with the company immensely and love the work that we have been doing, but I hit 40 years old this year and for me it is a time for introspection and thoughts on how I plan to spend the rest of my time on the planet.

My wife Kathryn and I started *The Computer Paper* in Vancouver in 1984, and expanded the publication into a cross-Canada publication, with editions that provide coverage for Vancouver, Calgary, Edmonton, Saskatoon, Regina, Winnipeg, Toronto, Ottawa, Montreal and Halifax. Along the way we purchased *Toronto Computers*, *Computer Planet*, *Canadian Computer Weekender* and *Governance Computer*. We also launched *Barber Mirror* and *Ottawa Computer* in the process. With 11 different editions and a circulation somewhere over 640,000 copies a month, we can lay claim to being Canada's largest computer publishing company — not bad growth for 10 years. I am happy with where I am leaving things. I feel I have achieved some of the goals I set out for myself or saw along the way.

## Our Oscar Speech

We would like to thank the many, many people who have bought the company to this

point. Obviously the staff at Canada Computer Paper Inc. have been key to the development and success of the company. You can read the manifest of our magazines to see the names of the 75-plus people who make it all possible each month.

We would like to specifically name some people who have been key to the long-term development of the company: John Oliver, national sales manager; Han Singh Khosla, associate publisher in Vancouver; Patricia Fitzgerald, marketing manager and associate publisher in Calgary; Suzanne Fitzgerald, Winnipeg manager; Gwynne Bennett, managing editor; Christine McPhie, corporate controller; Tina Wong, operations manager in Toronto; Elmer Marchmont, associate publisher for our Eastern Edition; Janice Loughman, western key account manager for CCF; and Judy Prange, associate publisher for CCN.

We would also like to thank our many long-time and loyal advertisers who have made the journey possible. Finally, we thank you the readers who keep reading, keep using the magazine as a source for your purchasing and keep telling advertisers you saw their ads in our publications. Oh yeah, we would also like to say thanks to our Moms and Dads.

## One More For The Road

You will probably get at least one more column out of me before I leave on our round-the-globe trip. The management of Hefko Mag has asked me to send a postcard or article once in awhile from the road, so don't be surprised if my mailing list shows up on occasion from some far-off place, with an opinion on global computing.

Enjoy the news. DA

*Douglas Alder is Publisher of Canadian Computer Weekender. He can be reached at publisher@tpp.com.*

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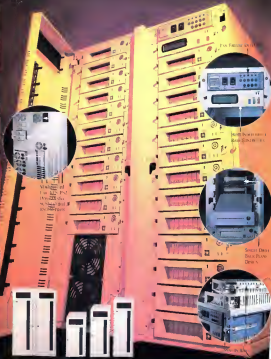
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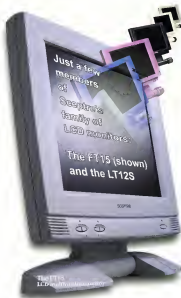
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